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The Journal devoted to increasing Production through Better Management of People at Work

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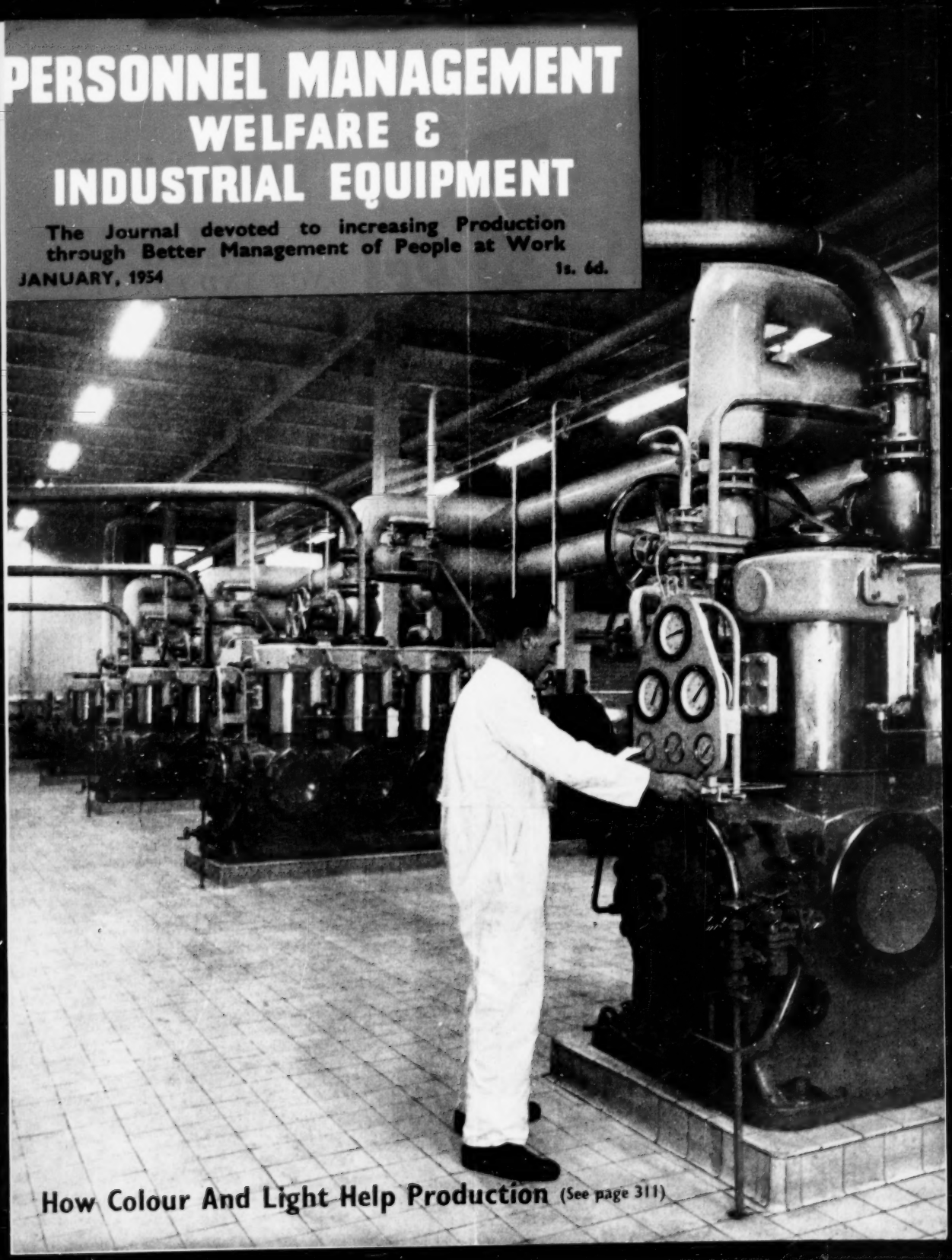

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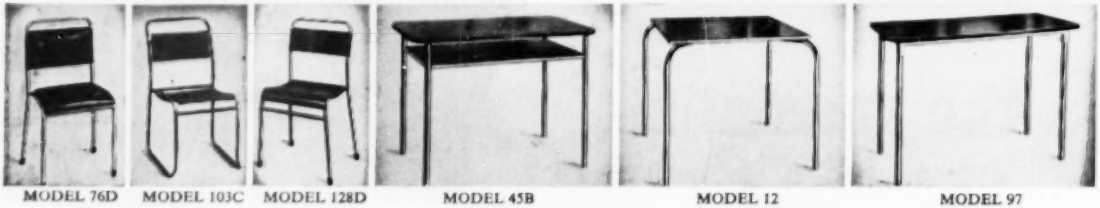

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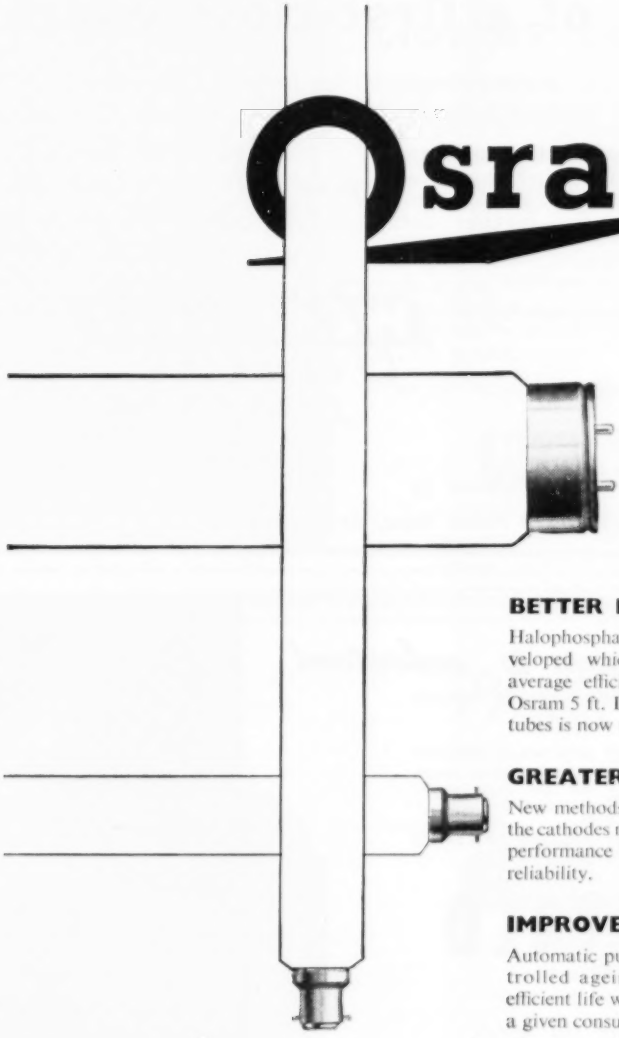

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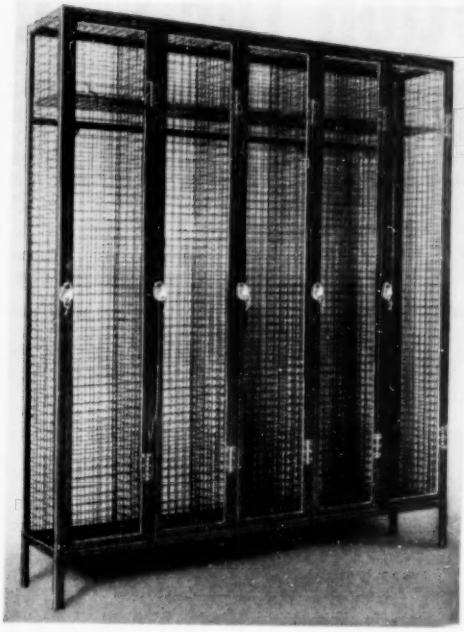

Nest of Five Lockers, Fig. No. 1364

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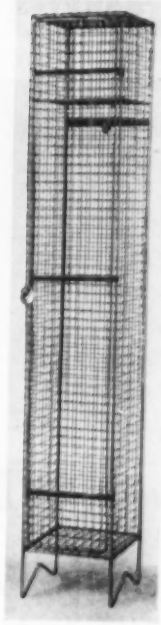

Fig. No. 1363

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Sample 7/6
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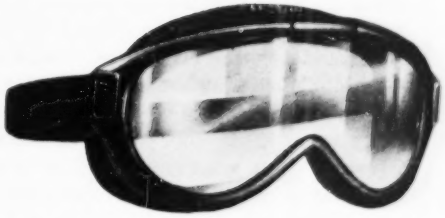

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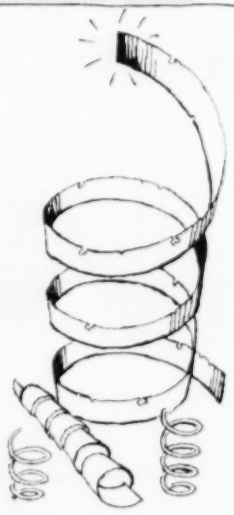

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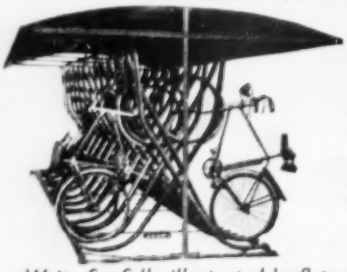

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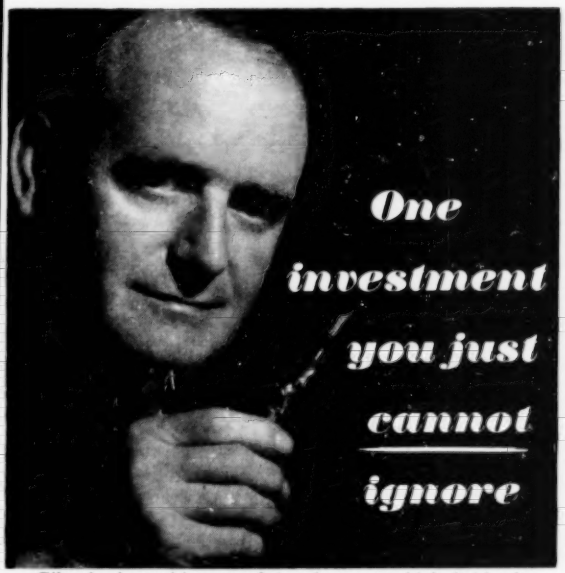

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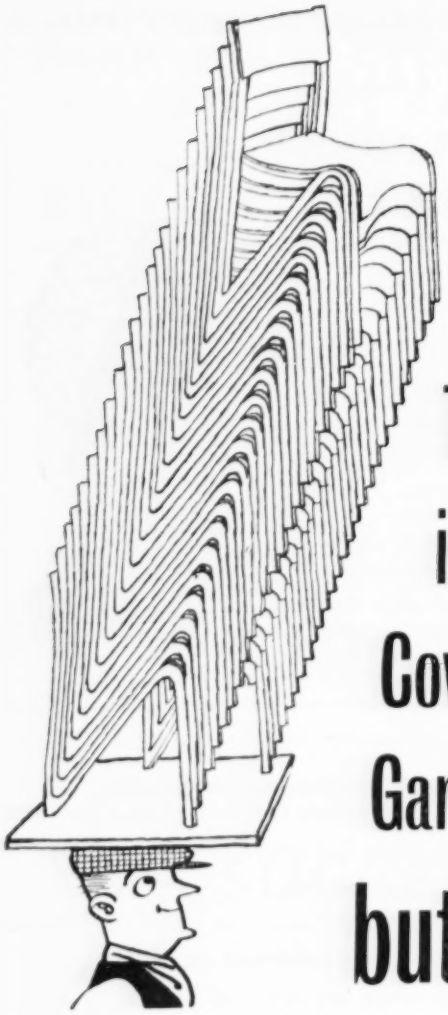

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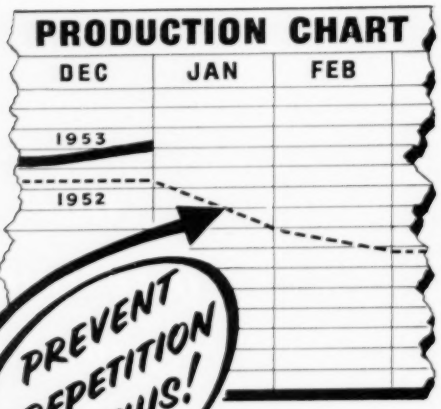

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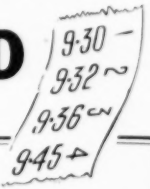

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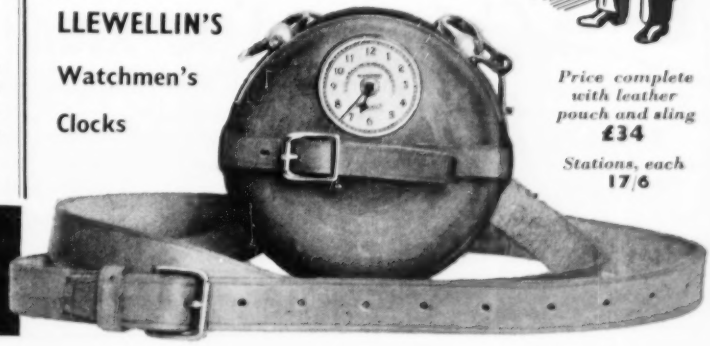

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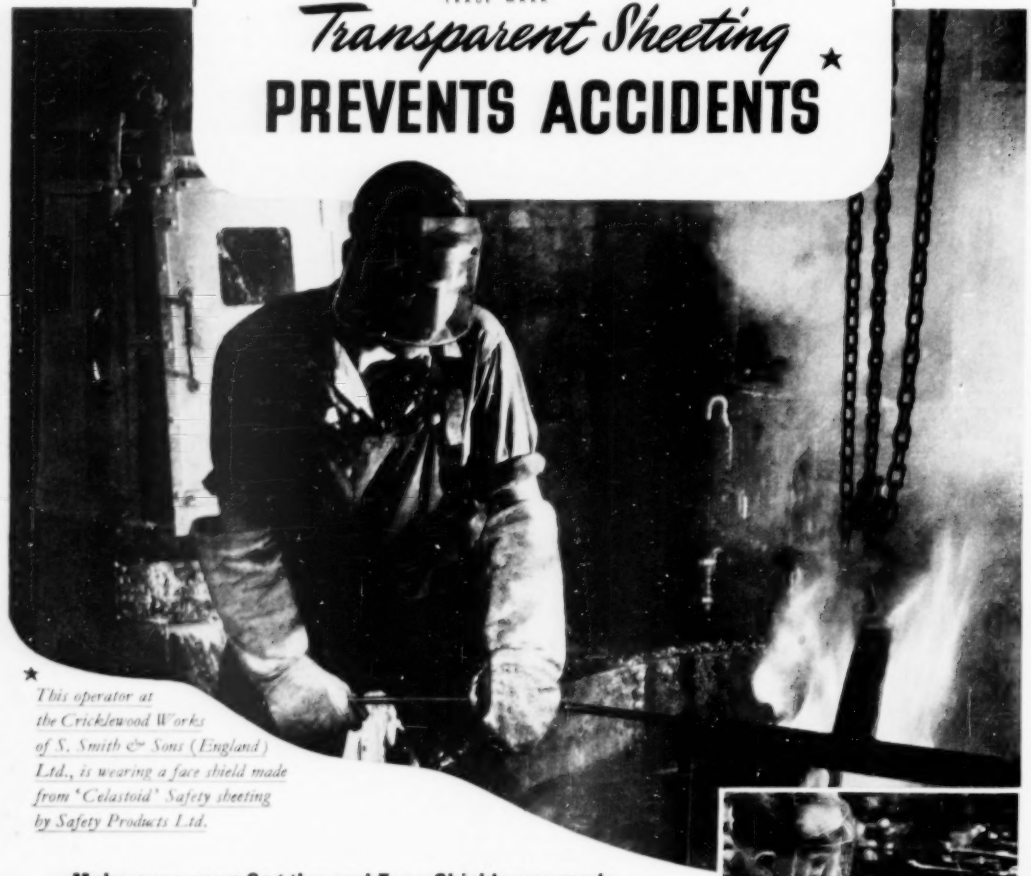

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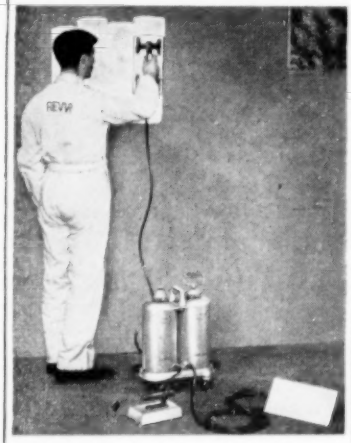

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Personnel Management Welfare and Industrial Equipment

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WELFARE, TRAINING AND HEALTH

Raising Foremanship Standards—1

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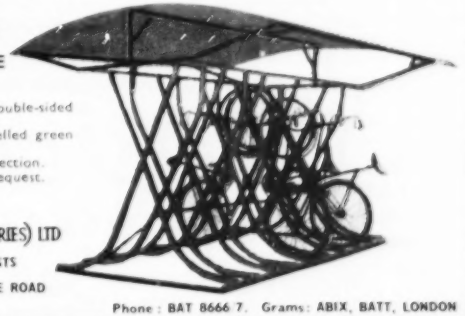

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" Well I think it's lovely, in fact when I get married I'm going to have it in my kitchen ! "

" Trust you Mary, you always want the best—don't you ? "

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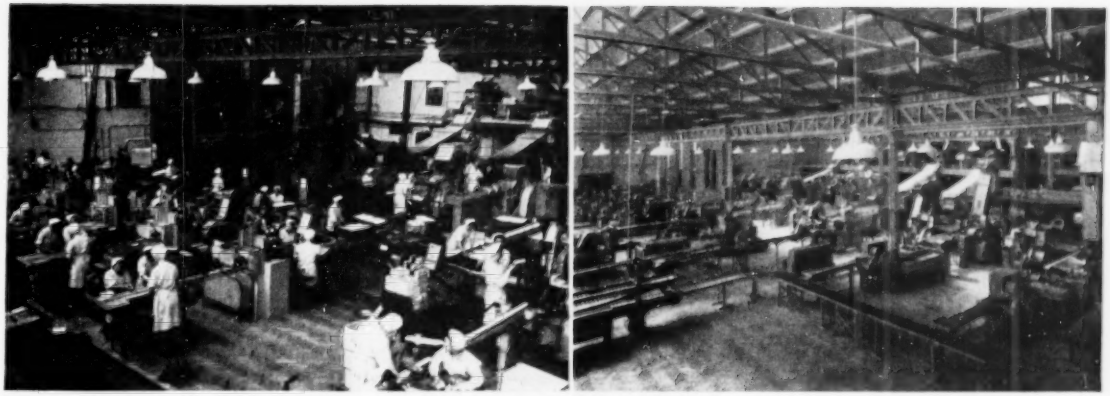


Psychromatics in a soap factory of *Messrs. Lever Bros. Port Sunlight Ltd.*, Efficient mass production is the keynote in this factory. Some idea of the improvement in the visual conditions and the creation of a more congenial environment can be seen in these "before" and "after" pictures. The scheme is in cream, blues, greens and warm greys. Our Front Cover shows colour/lighting in the new refrigeration plant at the Stork Margarine Works, Bromborough.

How COLOUR and LIGHT Boost Morale and Output

By K. R. GIBBINS

Manager, Psychromatics Section, Holland & Hannen and Cubitts Ltd.

"Science imitating Nature!" This is what in effect takes place when colour and light are systematically applied to the factory interior. Outdoors, Nature has provided ideal colour/light conditions. Man's ingenuity and knowledge can bring something of this ideal to the shopfloor with benefit to workers and management alike. This is the first of two articles which indicate the scope for colour and light in industry and describe how these can best be exploited.

DURING the period of great industrial expansion in this country at the latter end of the nineteenth and the early years of the present century, factories were built primarily to house machines and little or no consideration was given to the people who were to occupy the factories and operate the machines. In fact, to judge from reports on the working conditions of those days, we can only suppose that, but for a few notable exceptions, managements generally held the view that an uncomfortable environment made for good work.

Happily we are now living in a more enlightened era and the emphasis today is on the human being in industry. People are no longer regarded as machines and expected to work satisfactorily irrespective of the conditions under which they spend their working lives, and with this new outlook has come the realisation that factories should be places fit for people to live in.

It is indisputable moreover that improvements in industrial working conditions bring direct benefits to employees and management alike, less fatigue with improved health and morale to the former, while to the latter come the fruits of better labour relationships and a higher output resulting from increased efficiency.

Although many factors influence working conditions it is only proposed to examine here two of them, namely, lighting and decoration. These, applied together in a scientific manner in the technique of Psychromatics, are basic factors; the first principle of Psychromatics being to ensure the maximum case of visibility in any interior designed for work. It is unfortunate that all too often in the past building interiors have been created where the visual conditions have been wholly unnatural, we have had light without brightness, harsh shadows, glare and squalor, with unlighted ceilings which produce a "tunnel" effect thoroughly depressing to the people working beneath them.

Outdoors, Nature has given us the ideal conditions of a luminous sky and colourful surrounding brightness. Taking this theme of surrounding brightness indoors, we have, instead

The Editor, the Advertisement Manager and the staff of PERSONNEL MANAGEMENT, WELFARE AND INDUSTRIAL EQUIPMENT wish all their readers and advertisers happiness and prosperity in the New Year.

of the luminous sky, a bright ceiling and upper walls with, as compensation for Nature's colouring, the surroundings, machines and equipment coloured in light restful shades to ensure good vision and a psychological enviroment best suited to the type of interior and the purpose for which it is used.

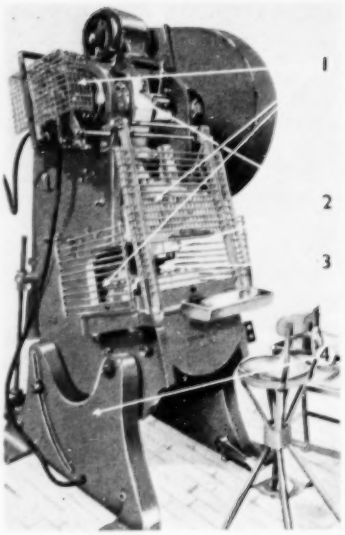
An interior so treated and furnished with an artificial lighting installation of efficient yet moderate size does not appear appreciably less bright at night than in the daytime. This demonstrates the fact that illumination values alone mean very little where the appearance of the room (and therefore the visual comfort) is concerned. But that surrounding brightness means very much.

Our eyes are often called upon to function under enormous variations of light intensities but it will be readily appreciated that *good* vision is only possible under adequate lighting conditions. Furthermore, although science has shown that the effectiveness of seeing, i.e., visual acuity, increases progressively as the illumination is raised, it is possible to carry out efficiently almost all everyday tasks with moderate lighting levels *so long as the quality of the lighting is satisfactory*.

The amount of illumination necessary to perform a given task without eye strain is assessed in relation to the brightness of the visual field. The critical area within this field may be the operating point of a machine, numerous kinds of manipulative tasks or the study of written or printed matter, and it is the size and brightness of this object detail which are the deciding factors. The light and shade present in the object detail also influence its effective brightness and, therefore, the ease of seeing, and this contrast may be one of colour or brightness or both.

The Surround Areas

Another factor which exerts a considerable influence is the brightness of the surround areas which include desk and bench tops, machine bodies, floors, walls and ceilings within the room. The most comfortable seeing conditions occur when the level to which the eye is adapted when concentrating on the work is not sensibly altered when looking up from the task and viewing any point in the normal field of view. This obviously implies that the brightness contrasts must be carefully balanced and all traces of glare eliminated.



1. Guards painted a warm grey, differing in hue but of similar tone to the body of the machine. The lower guard is down when the machine is operated but the brightness values are such that the operator is able to see the work quite comfortably through the guard.
2. Interior of machine forming background to work and moving elements painted cream.
3. Work component of polished aluminium being processed.
4. Machine body coloured a greyed blue-green.

It is sometimes argued that the engineering approach to colour in decoration is at variance with the aesthetic sense but this is not necessarily the case. A well designed industrial colour scheme can be completely satisfying aesthetically but the criterion is that the functional requirements of the scheme must be settled first since they are more important in a building designed for working in than in the case of a scheme designed for purely decorative effect. The scientific treatment of colour does not render obsolete the human attribute of colour sense, but it does eliminate guesswork by providing accurate data.

One example of this difference of approach may suffice to emphasise the need for care. The use of complementary colours, taken from one of the standard colour wheels or circles, in decoration is well-known and, of course, the method is applied widely in industrial schemes. The exacting visual problems found in industry, however, demand a more scientific system of colour planning and use is made of the "after-image" retained by the eye when the retina has been saturated by a particular colour. This "after-image" colour is the true complement and when the immediate surround to the critical work area is matched to this in hue and tone it completely absorbs the after-image when the eye is brought to rest on it.

Distant Surfaces

We should not forget also that the correct value of complementary colours in juxtaposition is a vital factor in industrial colouring and must be watched not only on the machines and critical work spaces but on the more distant surfaces of walls and ceilings, etc. Not infrequently this effect is deliberately exploited to direct attention to work areas of special concentration by alterations in colour values caused by juxtaposition.

For a Psychromatics treatment to be complete, machinery and equipment should be brought into the scheme. In many instances the machines form the major part of the field of view and may assume greater importance than the more distant walls; certainly by their size and nearness they impinge upon the operatives' consciousness.

It is recognised that machinery must be preserved against rust and corrosion and will, therefore, be painted in most cases. It is only logical to paint in colours that will satisfy the visual and psychological requirements of the locale. By the proper combination of colours, mind and eye can be concentrated on the work while the controls and other parts of the machine are made easily visible to the operator without distracting his or her attention. The contrast between the work passing through the machine and the part of the machine forming the background to the work is also kept at the right level.

When colour and light are brought together in planning for visual comfort, the problem is not only one of matching intensities with tone and colour but also of contending with the colour rendering properties of the light sources used. Daylight is not as a rule any problem by itself but since almost all interiors need

(*Continued on page* 338.)

Where the Staff Think For Themselves and General Progress Results

By ROBERT McKINNON

Here is the story of a small printing firm with a great faith in ideas. Their staff of only forty-one is housed in a basement no more than 3,000 sq. ft. in area. Yet a constant stream of visitors from home and abroad visit this works every year to see for themselves the results of their ideas exploitation. All staff are both encouraged and expected to use their imagination, for the firm offer them not a routine job but a career. Results to date include shorter hours and higher output.

MR. DEMETRIUS COMINO, managing director of *Krisson* and larger associate, *Dexion Ltd.* Born Sydney, 1903, the son of Greek parents. Mr. Comino founded *Krisson* in 1927. The success of his ideas there played a large part in the development of *Dexion* slotted angle metal. *Dexion* now draws many of its top men from *Krisson* and both firms have the same personnel manager and administration.

A FREQUENT complaint of those in charge of small firms is that the best of their intentions perish as a result of the circumstances into which their ideas are born. Lack of capital, space, apathy, sometimes despair itself, are but some of the factors ever at hand to abort any attempt at progress—so, at least, it is claimed. We are told that imagination even is trapped by the narrow confines of the workspace and that the most any sensible manager can hope for is to keep the business ticking over as before.

It is a persuasive theory this—especially where the all too human tendency to leave things as they are has taken deep root—but it is founded on the delusion that ideas can only be worked out where there is the scope to apply them. The truth is that the ideas create the scope. And of this there is no better proof than the story of Krisson Printing Ltd., a small firm in the heart of London's West End, employing under fifty people, whose example might well be taken as a model lesson by other firms of a similar size. The basic tenet of Krisson's philosophy (and with them it is no empty platitude), is that their staff is their most valuable asset. Ideas, vision, progress, stem from human beings not from machines; and the firm does what it can to develop and maintain this exclusively human faculty, while being careful not to fall into the error of regarding its staff merely as machines that think.

Krisson's ideas begin at the very beginning; that is, with staff selection. Vacancies are advertised in several daily newspapers and there is no discrimination between candidates on a class or a relatives basis. Grammar or council school boys are selected purely on merit and promise, implicit in this latter word being the management intuition that the youths chosen will come to think along Krisson lines—namely, that throughout their careers they will use their thinking power to solve problems and improve methods, not just sit back and become working automatons. The accent is on youth because the firm does not want the type of man who, although experienced, has fixed concepts.

A novel feature of the selection method is what the firm calls a "selection dinner." Candidates are dined in a local restaurant where their reactions, gestures and general conversation are noted. Later they are taken round the works and then the more promising of them are given a written questionnaire to fill. Finally, although there may be only two vacancies, three or four may be chosen for a month's trial in which period they spend some time in every section of the works—on the machines, in the office, in the composing section and the creative layout department, in the warehouse, bindery and despatch.

Krisson will readily admit that their selection scheme is rigorous, that to join their firm a youngster must be good—that is, have ambition, intelligence and industry, but they can honestly offer entrants a career, and if he has the right qualities, a new entrant need not fear frustration. The firm is not merely concerned with training people how to run machines but to broaden their entire outlook. They want their staff to persist in saying: "We have the best today, but I am not content. Tomorrow we shall have something better."

Training classes are given by senior members of the staff who devote several evenings a week to giving talks and demonstrations to the staff. Such activities cover a

By carefully planned lighting, storage racks of their own design and plant laid out in logical sequence, *Krisson Ltd.* have not only increased the capacity of their basement workshop but made it a pleasant place to work in.

wide range of topics: for instance, some of the talks are directly tied up with general character training and embrace such subjects as "How to read a book" or "How to employ imagination and enthusiasm," while other lessons deal specifically with technical matters. Throughout the day as well, newcomers are carefully nurtured in their various tasks and both boys *and parents* are kept fully informed on the progress once every two months. Recommendations are carefully followed up by foremen after reports are issued. And the youngsters themselves are expected to keep notebooks not only of what they have learned but of what they have thought about their jobs.

Every effort is made to ensure that the older members of the firm also do not lose what Krisson call "the questioning attitude." This is done chiefly through CAMPAIGNS defined by the firm as follows:

"We believe that once in a while it is a good plan to disrupt routine and let fresh air and new ideas into a business. It gets one out of the rut. We at Krisson do this periodically by having a campaign. Sometimes it is to improve tidiness and cleanliness. Sometimes it is to boost efficiency and quality . . . For a whole month, with the aid of demonstrations, talks, films, competitions, playlets and posters, we concentrate our thoughts on the chosen subject. The campaign usually culminates in a party at which prizes are presented."

The following are brief descriptions of some such campaigns:

Criticism Campaign, 1947

How and when to give criticism? How not to get people's backs up? How to take criticism and criticise one's own efforts? *Result*: Left an indelible mark on the company's outlook; all agreed on its value.

Output Campaign, 1947

To set the stage for the 40-hour, 5-day week and at the same time to get staff thinking of greater output, the accent all the time being on improving and finding new methods of work, eliminating hold-ups and redesigning the plant layout. *Result*: **A change-over from a 44-hour week while output increased at the same time.**

Motion Study, Methods, and Quality Campaign, 1948

To consolidate gains of previous year's output campaign. *Result*: Campaign demonstrated that by the common-sense application of motion study principles, increased output and better quality could be attained without much extra effort or the addition of new machinery.

Questioning Attitude Campaign, 1951

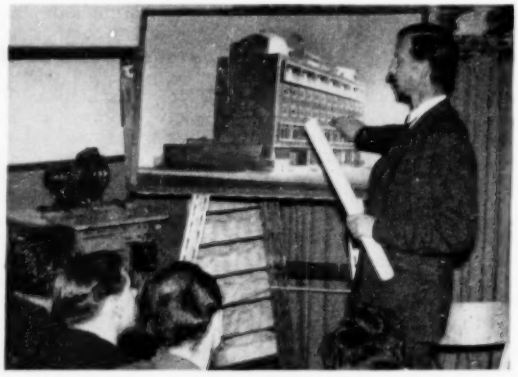
To inculcate the questioning attitude as a mental habit, with "Why?" "How?" "What?" "Where?" "When?" being the general theme. *Result*: Over 500 suggestions for improvements of which more than 400 proved workable. The questioning attitude became a vital part of Krisson staff training and of the working out of new and better methods.

Defining A Project

The firm's latest campaign, held in the Autumn of 1953, stemmed largely from the "Questioning Attitude" venture. It was defined as a Projects Campaign, this being a job of work, a project to be solved, or a course of study or research. The technique followed was: (a) Recognise and set the project; (b) Is it worth while? (c) Set the conditions and scope; (d) Gather information and sift it; (e) Prepare tentative solution; (f) Criticise, check, test; (g) Repeat the whole process.

It is by these and like methods that Krisson have preserved that flexible environment which is a precondition of all real improvement. The firm does not allow even the findings of a campaign to become fixed concepts. The 1948 Motion Study and Methods campaign, for instance, showed that output could be increased without the introduction of new machinery, but the firm did not fall into the tempting trap of assuming, therefore, that there was no point in ordering new printing machinery, and within the last few months, new plant has been installed throughout the entire premises. What the firm have proved beyond doubt,

(*Continued on page 326.*)



Architect, Ralph Tubbs, O.B.E., F.R.I.B.A., tells the *Krisson* staff about his own job during their 1953 "Projects" campaign

Management Through the Supervisor's Eyes

Should First Impressions Count in Staff Selection?

This month DISCUSSION LEADER examines an attitude found in all walks of human activity—namely, the temptation to judge people on first impressions and the related tendency to reach a verdict based on irrational prejudice. Have you recognised this attitude in yourself in dealing with your staff? If so, do you trust these "first impressions" or guard against them? We invite readers' opinions on this basic question.

I HAVE just received an encouraging letter from a woman supervisor. She explains that she is in charge of a department of about 100 workers—all women—and that she has several forewomen under her. She then goes on to say "I read your remarks on the subject of interviewing with great interest and I should like you to know that I solved a disciplinary problem yesterday by following some of the methods you suggested.

"A new forewoman has just been appointed in one section of the department. Yesterday, she came to me, looking very upset and said a group of four girls had been very rude to her and either they must apologise or they must be dismissed. I listened to her story and judged from what she said that the four girls had been testing how far they could go with this new forewoman and that my correct course must be to uphold her authority. Firstly, I then saw all four girls together, as is the custom in our firm, but made little progress with them. I decided then that I would have a much better chance of getting at the underlying attitudes as you suggested, if I saw them one at a time. This, I accordingly did and listened very carefully to what each had to say. By which time I had secured three very sincere apologies and a promise from the fourth girl to mend her ways."

I think one of the valuable points we can all note here is that this supervisor was successful when she saw each girl *privately*. We are all much more likely to say what we think or feel about something if a third person is not present.

BLONDE OR BRUNETTE

Do They Really Differ?

Another correspondent writes: "Your remarks on interviewing are interesting, but I wonder if you could go a bit deeper into the ways in which a supervisor can really remain detached and make a fair assessment of another person, uninfluenced by his own opinions or ideas? I have a personal experience in mind over this very point. I belong to a small unit which is part of a larger organisation. Recruitment and selection for our concern are done at one central place and we supervisors have to like what comes along or lump it. Recently I sent in a requisition for a new technical assistant to the Employment Department. A week later I had a ring from the Assistant Employment Officer who said he had engaged a man with very good technical qualification and I was to look out for him on Monday morning. On that day a youngish man with a very sallow skin turned up at our station and announced that he was the new technical assistant. *The minute I set eyes on him I took an instant dislike to him.* If I had had the power to turn him down, I would have done so unhesitatingly. As it was, I had to make the best of a bad job. As the weeks went by, however, I realised how wrong my first impressions had been. My new assistant is extremely clever and hardworking and he has made my job half as easy again. Now that the ice has thawed between us we are very good friends. Is it possible, do you think, to guard against mistaken first impressions?"

This correspondent was obviously judging his new assistant by the colour of his skin, rather than by other and more important characteristics. "Beauty is only skin deep" is a very true saying but one which we all unfortunately ignore at times, often because we cannot help ourselves. There are many pitfalls in our way. We may, for example, be misled by stereotyped ideas—many people expect all red-headed people to have fiery tempers, to some people a large nose means high intelligence, thin lips denote meanness while the owner of close-set eyes must be untrustworthy. An old-fashioned book on how to select people for employment contains this statement:

"It is no secret to observant employers of labour, that blondes are changeable, variety loving optimists and speculative. Brunettes are consistent."

PREJUDICES

Minimising Their Influence

Two investigators, curious to check the truth of this, asked 100 people who could claim to know two blondes and two brunettes to test which of these traits were actually possessed by the blondes and brunettes they knew. As we might guess, blondes were reported to have some "brunette" traits and vice versa.

A personnel officer I once knew made a similar broad generalisation when he said he never employed a woman in a clerical capacity if he noticed at the interview that her stocking seams were not straight. "If she cannot keep her stocking seams straight," he said "she will not be able to keep the books straight either." It may, of course, be true that in some cases an untidy way of dressing may denote an untidy approach to other problems, but other evidence of untidy habits should be sought for before such a conclusion can be fairly drawn. It is possible to be on our guard against such conscious prejudices. If we know we possess them, we can discount or minimise their influence. The example given by our correspondent

A Guinea for Your Thoughts!

What you, the foreman or supervisor, thinks, matters. We want *your* views. We therefore invite you to comment on the problems raised by DISCUSSION LEADER. A guinea will be paid for each letter published.

about the man with the sallow face, however, may well be an example of an unconscious prejudice. He used the phrase, "The minute I set eyes on him I took an instant dislike to him." The real origin of his dislike is probably buried in his unconscious mind, for how can we dislike someone on rational grounds, before we have even spoken to them?

Such a dislike may well have its origin in another cause or another incident, which happened in the past history of the individual concerned and is now completely forgotten by his conscious mind.

An example of this comes from the interviewing programme of the Hawthorne Investigations, which I suggested you might read about some months ago. A girl who was being interviewed protested at great length that her supervisor had a down on her. "He bullies me" she said, "and always picks on me if things go wrong." After a lengthy interview, she got up to go, and just as she was leaving she turned back and said "You know I think I realise now why I dislike Mr.——— so much. It is because he *reminds me* of my step-father."

What Do You Dislike?

A flash of insight had revealed to this girl the real source of her prejudice. The rest of us are not usually so fortunate and many unreasonable fears and dislikes are difficult to overcome because their origin is not known to the person who harbours them. In particular, we all have our pet dislikes; there are always certain traits which we consider objectionable in other people.

I invite you to send me a list of ten traits which you particularly dislike in other people—the Editor says he will pay one guinea for each list printed. One list runs like this: "A dislike for people who bite their finger nails; have affected speech; tap; fidget; have a rolling walk; look you too straight in the eye; are shy or too aggressive; interrupt you; and who have short legs!" I think we shall see that your lists vary a good deal. If at least we are each of us aware of our dislikes we are in a better position not to let them colour too much our judgment of others. One final point. Do you have any method of ensuring that you remain scrupulously fair when faced with an irrational prejudice? If so, I am sure other supervisors would be interested to hear of it.

Raising Foremanship Standards—1

Foremanship Training—Its Purpose and Scope

By W. H. BOWER, B.Com.

QUESTIONS of raising the standard of foremanship are very much in the foreground in industry today. For too long the foreman has been a forgotten man, and it is only during the last year or two that management has begun to realise the extent to which the foreman occupies a key position between management and men. With management now also becoming more cost conscious (and perhaps even somewhat critical of growing expenses for employee "welfare"), there is nevertheless so much that can be done for foremen which requires very little outlay, but will reap handsome dividends in enhanced performance.

Selection and training are closely linked together and we cannot very well consider one without the other. In this connection four questions will arise:

Why train? Whom do we train? What do we train for? How to train?

WHY TRAIN FOREMEN?

In spite of undoubtedly a great deal of goodwill, both on the part of employees and on the part of management, to achieve better understanding and to secure greater co-operation, these two factions frequently fail to integrate adequately because of a blind spot which holds them apart. This blind spot, or break in the chain, is often a badly selected, untrained, ill-informed, poorly paid and completely frustrated foreman. **However broad-minded and however efficient higher management may be, its efforts will not penetrate through to the working force if incompetent foremanship blocks the way.**

"Then, too, I am very conscious of the paramount importance to British industry of that key man, the foreman or supervisor. He is the link in industrial relations, representing, to most workers, for all day-to-day purposes the "boss" and all the mysteries of higher management in tangible and vocal form." *(Sir Walter Monckton, Q.C., Minister of Labour.)*

Furthermore, the growing number of specialists and the development of functional management have made the foreman feel that his status and authority are being steadily undermined, and that his duties and responsibilities are being cut. Add to this, growing democratic attitudes in factory and workshop, the spread of Joint Consultation, full employment

Richard Thomas & Baldwins Ltd., are one of the increasing number of British firms who are now concentrating on foremanship training. Here are some of their supervisors at a course.

THE FOREMAN MUST:

1. Be efficient if management's efforts are to be fully effective.
2. Have his duties clearly defined.
3. Possess human understanding to support his technical and administrative skills.
4. Be given an authority commensurate with his responsibility.

and the disappearance of the fear of the sack, and it is small wonder that the foreman is confused and longs for the "good old days," when he was undisputed boss in his own section.

WHOM DO WE TRAIN ?

Perhaps one of the reasons why so little has been done until recently in foremanship training is to be found in the very wide differences in duties and skills demanded in various industries, *and because we really have no clear definition as yet as to what is a foreman.* His span of control can vary from six to over 800 people, his duties and responsibilities differ equally widely between light and heavy engineering, shipbuilding, transport, distributive and service trades, etc., and to add to the confusion so many various names are used for his function, foreman, supervisor, departmental manager, section leader, deputy, gaffer, ganger and many more. A recent survey disclosed no less than 300 official names for "foreman" in industry alone.

In our training programme we must, therefore, be clear as to whom we mean by "Foreman." A useful definition would be:

"A foreman is a member of management who co-ordinates the activities of the primary working group, without necessarily participating himself in their individual activities."

Furthermore, thought should be given as to whether we start with existing foremen or concentrate on the potential supervisor. Generally, it will be advisable to begin with existing foremen as experience has shown that even the older and old-fashioned type of foreman can improve considerably through a carefully prepared programme. It will also be advisable in many cases to include other members of intermediate management in the training scheme, such as time and motion study men, progress clerks, designers, etc., who have frequent contact with the foreman, and whose activities are often resented and not fully appreciated by him.

WHAT TO TRAIN FOR ?

In order to achieve a well-balanced training programme, it will be essential to define the duties and responsibilities of the foreman, and analyse the skills needed to carry these out. The definitions of duties and responsibilities will be useful in any case, as it is still comparatively rare for the foreman to be given a clear mandate on his appointment. Such a schedule might include responsibility for the following items:

- Production—quantity and quality
- Control of costs in his department
- Maintenance of plant and equipment
- Improvement of equipment and methods
- Communications—down and up
- Human relations
- Training—employees and of understudy
- Safety
- Co-operation with fellow supervisors.

The execution of these duties and responsibilities calls for three fundamental skills:

- Technical or job skill.
- Administrative or knowledge of internal procedures.
- Co-ordinative or human skills.

And from these three skills together is constituted a 100 per cent. effective foreman.

Our next step will be to estimate the approximate percentage of each of these three skills required by foremen in our own organisation. This will vary enormously from one industry to another, but it is important to emphasise that the need of technical skill should not be overrated. Foremanship has suffered for too long from over-emphasis of technical skill, both on the part of higher management and by foremen themselves. This analysis of skills will give us two things:

(a) A clearer picture, perhaps for the first time, of what qualities we are really looking for when selecting men and women for supervisory posts.

(b) How to balance our training programme as between technical, administrative and human subjects.

Tube Investments Ltd's residential training centre at Birmingham

Research On The "Forgotten Man"

Two Studies in Supervision, by Elizabeth Livingstone and John D. Handyside. N.I.I.P. Report No. 10. *Price* 2*s.* 6*d. post free.*

THE foreman, who for so long tended to be the Forgotten Man of industry, has of recent years been coming in for a more reasonable share of public attention. These two studies recently published by the National Institute of Industrial Psychology describe the nature of some of the stresses which impinge upon him. In the first of these many of these stresses arose from a lack of understanding between the supervisors and their managers, a situation which, needless to say, increased the difficulties at the higher level no less than at the lower. The writer, by virtue of her roving commission in the factory, was able to trace some of these misunderstandings to their source, and to suggest possible methods of resolving them.

In the second and longer of the studies, the writer goes further than this. He set out not only to describe the problems which beset the foreman, but to attempt to describe "successful" foremen in terms of their personal characteristics, his aim being to acquire information which might be of help in selecting the supervisors of the future. This brought him up against the ticklish problem, by what yardstick should the "successful" foreman be measured? Should the opinion of his manager be the prime criterion, and just how much weight should be given to the opinion of his workers? The writer's account of his attempts to solve this problem makes interesting reading, and shows the great difficulty of arriving at a reliable answer.

It is, of course, impossible to draw general conclusions from just two studies as the findings are necessarily largely specific to the firms under review. But by presenting a picture of two live situations, the authors may assist managers to see more clearly some of the problems of their own organisations.

New Legislation for Mine Safety

THE first major legislative measure concerned with safety in mines since the passing of the Coal Mines Act, 1911, the Mines and Quarries Bill—the text of which was published recently—revises not only the Act of 1911 but also earlier Acts, and defines anew the duties and responsibilities of owners and managers.

By revising old legislation, it is proposed to impose upon the managers of mines new general measures against dust which is likely to be injurious to health and liable to cause explosions in the mines. Quarry managers are charged with a corresponding duty. There are also new regulations to meet the danger of falls of ground in the roadways and workings of a mine, and to safeguard the way of escape of workmen in the event of extensive underground fires. A further requirement governs ventilation.

Existing laws relating to the working conditions of women and youths are modified and the minimum age for employment of boys below ground is raised to sixteen. The Bill provides that the conditions now applicable to boys under sixteen in surface employment are extended to all youths under eighteen.

Conditions of Employment

These conditions provide for maximum daily and weekly hours (nine hours a day and forty-eight hours a week), maximum spells of work, thirty-minute meal breaks and a prohibition on night work. This last condition will be deferred in its application to Northumberland, Durham and Warwickshire, where there are special shift systems. Workers below ground who are under eighteen already have the protection of a statutory 7½-hour shift and will now, in addition, have the benefit of the prohibition on night work and of statutory week-ends.

Under Part I of the Bill, the general principle of the responsibility of a manager for his pit is upheld. Methods of appointment and the duties of managers, under-managers and other officials are defined and for certain classes of mines, managers, under-managers and deputies will have to be qualified.

Parts II and III contain the basic health and safety requirements for mines and quarries, respectively, and two succeeding sections deal with the notification and investigation of accidents and the workers' right to appoint persons to make safety inspections on their behalf. **It is proposed that these safety inspections should apply to all mines and quarries, and not only to mines under the Coal Mines Act.**

Since the 1911 Act, research and practical experience has led to a larger and more comprehensive approach to the problem of adequate roof supports which is embodied in the phrase "strata control". This concept involves a strategic as well as a tactical approach to the problem of roof support.

Small Cost of Remploy

DESPITE a substantial wage increase, Remploy Ltd.—the company formed by the Government in 1945 for the employment of severely disabled workers—incurred a smaller loss for the last financial year than that recorded for the previous year. This loss amounted to nearly £2,380,400, which was about £62,000 less than the figure for the preceding year, and was equivalent to an annual cost of 11¼d. a head of the population of the United Kingdom.

Presenting these figures at the annual meeting of the company in London recently, the chairman (Sir Robert Burrows) recalled that there were now ninety Remploy factories employing about 6,000 disabled men and women in such trades as the manufacture of furniture, cardboard boxes, light engineering goods, knitwear and brushes.

Group Values

THE solution of problems centring on inter-personal relationships has been the subject of a recent study within a British company employing about 2,000 people. A longer chain of command—brought about by expansion and technical development, accompanied by an increase in personnel and supervisory staff—pointed the need for more formal procedures to maintain efficiency.

The survey consisted of confidential interviews and group discussions. The major needs that emerged were: (a) better communications; (b) definitions of duties and responsibilities; (c) training in management and supervisory skills; (d) understanding of company policy; (e) more effective operation of the disciplinary code; (f) systematised induction training; (g) a comprehensive promotion policy; (h) training in human relations; and (i) job training.

One aid to the solution of these problems was the use of conference groups. This involved setting up groups composed of people of different departments and levels—led by a fellow supervisor or manager—to discuss problems of immediate importance to themselves and the company. The findings of each group are reported back to the chief executive and the action to be taken is decided on and fed back to the group. (**Times Review of Industry**, 9/53.)

NEW LIGHTING ON COLD STORAGE

Dust-proof and moisture-proof fluorescent lighting fittings installed recently by the *General Electric Co. Ltd.*, in the Southwark cold storage depot of *J. Sainsbury Ltd.* The installation is designed to give an even distribution of illumination over the whole floor area, and extends far up the wall.

Courses on Productivity

A SERIES of short residential courses on the introduction and use of productivity study methods in industry has been arranged for works managers and senior production engineers. Initiated by the Institution for Engineering Production, the courses each run for two weeks and may be attended separately or in sequence up to a total of six weeks.

Each course will provide an opportunity for specialists in the work study, process development and operational research, and other productivity study fields, to exchange experience and to discuss practical application problems with industrial executives responsible for the introduction and development of productivity improvement work in their own companies.

The inclusive fee for the usual two weeks' residential course is £30 per member. Particulars are obtainable from the Senior Course Secretary of the Institute, "Southfield," 16 Norfolk Road, Edgbaston, Birmingham 15.

Kitchen Footwear

CANTEEN workers stand a good deal—very often on floors of tiling, concrete or granolithic materials. Particularly in the case of middle-aged women, the discomfort of their feet is reflected in frowning faces and echoed in irritable voices. Many firms provide cheap or free chiropody for canteen workers, and this is of great benefit to the employees' happiness and working efficiency. Working shoes are sometimes sold at special prices.

The kind of shoes to be worn could well be specified when staff are engaged. One important firm of commercial caterers insists on kitchen staff wearing low-heeled leather shoes with lace-up leather uppers to protect the feet from falling objects, etc. Even a small selection of plasters and some cooling foot powder would be useful additions to the canteen first-aid cabinet. **(Business, 12/53.)**

Formula for Failure

AS far as is known, no simple formula has yet been devised for achieving consistent and unqualified success in the administration of an industrial relations programme. Personnel men will probably agree that it takes no special effort or ingenuity to make an occasional mistake in their work. Consistent and outstanding failure, however, may not always be easy to achieve but it should be within the reach of anyone desirous of adopting the following recommendations presented by L. J. Whetsell in an address before the Houston Industrial Personnel Association:

1. In taking a position on a matter, always consider strategy first. Figure the angles and let your sincere convictions be secondary.

2. When your associates differ from you, be sure to take it as a personal affront. Take the position that no one can possibly be right but yourself, and regard all who do not see eye to eye with you on every issue as your personal enemies.

3. To avoid being just a mediocre failure lose your ability to see things through the eyes of the rank-and-file employees.

4. Become an office or a swivel-chair operator. People who have only a meagre understanding of your job may think you are a "big shot."

5. Be quick to make promises to employees and then promptly forget all about them.

6. Get into office and field politics; if there aren't any, start some.

7. Let prejudices for and against people sway your decisions.

8. Always be a stickler for the written word. Any deviation from the printed page would set a dangerous precedent.

9. On no account ever try to understand employees and know exactly how they feel. No greater fallacy has ever existed; yet, of all delusions, this is perhaps the most common. **(Management Review, 8/53.)**

Industrial Toll

ACCORDING to the American National Safety Council, occupational accidents in 1952 cost American industry $45 per worker. 15,000 persons were killed and 2,000,000 injured while at work last year, and total time lost as a result of occupational injuries added up to 250,000,000 man-days. Meanwhile, toothaches and injuries to teeth and jaws from occupational hazards are costing industry $12,240,000 annually.

Dissecting Profits

PREPARED by the Information Division of the Treasury, an illustrated broadsheet, entitled *Taking Profits to Pieces*, shows how the profit of a typical company is calculated and divided. Written in simple language, this leaflet is designed for distribution to industrial employees, or may be used as part of a works information scheme about a company's finances. Copies can be had from Circulation Section (T), Central Office of Information, Norgeby House, 83 Baker Street, London, W.1. **(Target, 10/53.)**

From The House Magazines . . . .

Safety Vision

An employee in the sheet metal assembly department of Vauxhall Motors Ltd. used to wear goggles over his spectacles, but finding that spot-weld flashes were marking the lenses he got his optician to grind goggles lenses to fit into the cup-type goggles. These goggles have a plain glass protector over the ordinary safety lens. The goggles have been fitted with a plain protector fore and aft, and the man is no longer troubled with having to wear safety goggles and spectacles. **(The Vauxhall Mirror.)**

Be Prepared

Firms that do not set up their Industrial Civil Defence units and do not integrate them with their local Civil Defence Corps authorities will find, in time of emergency, that they are not only unprotected but that they are unable to call on the help—through their local Civil Defence Corps and the Civil Defence Headquarters of their Borough—of fire, ambulance, water, gas, electricity, telephone and sewage repair services—let alone on the vital Rescue service. **(The Gazette—*John Lewis Partnership.*)**

The Arts in Industry

IT would be disastrous if, in quest of specialised knowledge, industry's students were to close their minds to the liberating influences of history, literature and the arts. For all its capacity, the technological mind needs such influences. Only then will it be wholly equipped to perceive, and make a progressive contribution to the wider issues of our complex world. **(Ingot News, 12/53.)**

"That Key Man" Again

After some years of relatively easy trading conditions we were beginning to feel the effects of competition both from within this country and abroad—Germany in particular. It had been possible for the man on the shop floor, while still maintaining a good standard of performance, to ease off a little, but now that we were facing keener competition it was becoming increasingly important that every man should give of his best. Good supervision could have a great effect on our export drive. **(The Bulletin—*Johnson, Matthey and Co.*, 11/53.)**

Mind and Matter

There seems to be general agreement that management of men is much more of an art than a science, just as management of materials is more a science than an art. Yet no manager is the worse for the orderly and logical reasoning of the scientist, to say nothing of his devotion to truth and his contempt for sophistry or casuistry. All should agree that the humanist is better for a little science, and the scientists for a little human nature. Blessed indeed is the good manager; blest are the well managed. **(Thorncliffe News—*Newton Chambers and Co.*, 4/11/53.)**

Protection of the Chest and Lungs

By W. J. S. GRAHAM
Safety Officer, Clayton Analine Co. Ltd.

Designed for use in factories producing face powders and the like, this flexible aluminium mask prevents the inhalation of dust and powder, while leaving the wearer free to speak.

SOME years ago a widely-seen slogan in railway carriages was "Mothers nurse your babies—if you can't get Nestle's." An apt parody on this could be made as follows: "Employers apply exhaust ventilation if you can't use breathing apparatus." Recourse is made all too frequently to breathing apparatus in one form or another when the real solution is to apply proper exhaust ventilation to the job. With this in mind, we come to consider breathing apparatus which can be divided into four main classes: self-contained sets, air-supplied hose masks, canister and dust masks and within each class there are further sub-divisions.

Self-contained sets

The first self-contained regenerative set was developed in 1880 by Henry A. Fleurs in association with Siebe Gorman and Co. Ltd.; today, with many improvements of course, it is the standard set used by fire brigades, mines' rescue teams and industry. Each set is fitted with an oxygen cylinder, breathing bag and a CO_2 absorbent chamber. The principle on which the set works is that the CO_2, which is exhaled, is absorbed and oxygen is fed from the cylinder back into the breathing system to replace the CO_2 absorbed. By this means only a relatively small amount of oxygen has to be carried. The "Proto" set can be used for one or two hours, dependent on size, and the "Salvus" for thirty minutes. These sets are very useful where persons have to work for long periods independently and without contact with their base, but the wearers require a considerable amount of initial training and should be given frequent refresher courses.

The other type of set is not a closed-circuit apparatus. The bottles contain compressed air which is fed to the wearer through reducing and regulating valves according to the amount of work he has to undertake. The bottles are larger than in the regenerative type and only last from ten to forty-five minutes. The advantage with this set is that it is much simpler in operation and the amount of initial training and revision required is considerably less. For short rescue work and certain types of inspection, particularly in the chemical industry, this type of set has many advantages.

Air-supplied hose masks

The smoke helmet or "Antipoys" type of apparatus is one where the wearer draws his air supply through a wire-supported, wide-bore air-line, the free end of which is in the open air. Its design restricts the distance the user can travel but it is simple to use and foolproof. The short-distance hose mask is suitable for sewers or tank cleaning operations. Where it is necessary for the man to work more than thirty feet from the air supply, additional lengths of hose can be coupled on and breathing made easier by the use of a pump or bellows. Whenever a person has to enter an irrespirable atmosphere he should be wearing a life-line and *there must be another man standing by, fully-equipped prepared to enter for purposes of rescue.* This is obligatory, for example, under the Chemical Works Regulations.

An alternative type of air-supplied mask, which has now become very popular, is one which is fed with compressed air through a narrow bore tube. Small portable compressors which can supply air at 5 to 10 lb. per sq. in. are available or in certain cimcumstances the mask can be connected to the compressed air ring main, provided the air is not contaminated and filters and reducing valves are installed. Where persons are working in one area the air line could be taken to pulleys in the ceiling and counter-weighted or affixed to a spring-loaded reel thus eliminating trailing cables on the floor. There being a positive pressure of air inside the helmet or facepiece, it is impossible for any toxic or dust-laden atmosphere to be inhaled. Another advantage is that the wearer has a supply of cold air blowing in to his helmet.

Canister Masks

These can be worn in any irrespirable atmosphere provided it is not deficient in oxygen and that the toxic gas is not above a one per cent concentration. It must be realised that a canister mask does not provide oxygen but merely filters out, by absorption or adsorption process, certain toxic gases or gas present in the atmosphere. Normally, different canisters are needed for different groups of gases, but recently the Factory Department of the Ministry of Labour and National Service have approved the organic gas canister for use against certain acid gases. The local Factory Inspector will provide users with a list of suppliers.

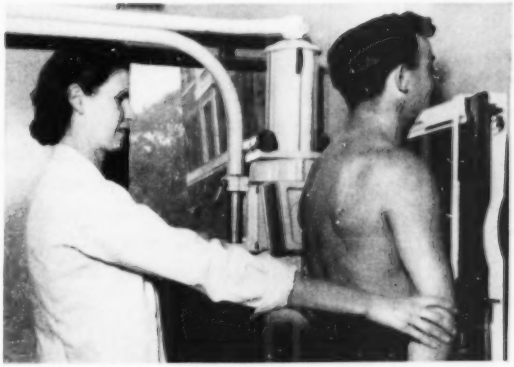
One of the difficulties with all types of canisters is how to determine how much effective life is left after it has been used on two or three occasions. In some instances the box in which the mask is stored is sealed and the user enters on a card how long he has worn the mask. But it is not only a question of how long has the mask been worn but in what con-

(*Continued on page* 336.)

Mobile X-ray Units Fight Mine Menace

By G. L. WARD

The National Coal Board have now launched a field research scheme to combat pneumoconiosis. Previous measures have reduced the number of certified cases of the disease from 5,801 to 3,308 in a period of three years.



A mineworker undergoes X-ray examination in one of the new mobile units.

PLANNED as a ten-year programme, the National Coal Board's Pneumoconiosis Field Research Scheme came into force last October when the National Coal Board put into service the first of two mobile X-ray units.

The objects of the scheme are to establish safe limits of dustiness (in terms of both quantity and quality of dust) in which men may work without risk of damage to their health, and to obtain some indication of the true prevalence of pneumoconiosis in all the coalfields of the country.

For the purposes of this survey—which will check and record the health of 30,000 individual workers—some twenty-four pits have been selected from all the Divisions. These are located in Scotland, Northumberland, Cumberland, Durham, Yorkshire, Nottinghamshire, the West Midlands, Lancashire, North and South Wales and Kent. **The National Coal Board point out that these pits have not been chosen owing to their having a high incidence of pneumoconiosis, but because, between them, they represent a cross-section of all mining conditions to be found in Britain.**

Radiological surveys of the men in these pits will be made every two years and detailed records of the dust and other environmental conditions in every part of these pits will be kept.

One of the two mobile X-ray units is based on Edinburgh and is closely associated with the University Department of Diseases of the Chest, and the other, which is based on Cardiff, works in liaison with the Medical Research Council's Pneumoconiosis Research Unit. The scheme is directed by the Board's Chief Medical Officer and Director of Medical Research, Dr. J. M. Rogan. Dr. A. Cochrane, of the Pneumoconiosis Research Unit, acts as scientific adviser to the scheme.

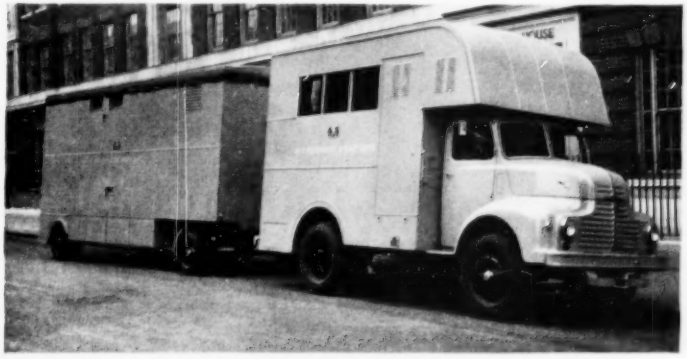
In charge of each unit is a medical officer, assisted by radiographers and clerical staff. Both units are identical and are equipped with a towing vehicle and trailer containing the X-ray apparatus. A Leyland "Comet" van with a chassis of special length is used as the towing unit. It houses a 4-ton diesel-driven generator set and a small air compressor. The generator supplies power for the X-ray apparatus and ancillary equipment, whilst the air compressor operates the moving parts of a film processing unit.

Coupled to the towing van is a Dyson 4-5 ton low-loading chassis, 22 ft. long and 7 ft. 6 in. wide, mounted on four twin wheels and supplied with a spare wheel and four steadying jacks. The trailer body is divided into two compartments, the larger with the X-ray cabin and the other, a dark room.

The dark room, at the forward end of the trailer, has an automatic processing unit which has been lately developed by Nucleonic and Radiological Developments Ltd. Films processed by this equipment are developed, rinsed, fixed and washed without handling.

Further facilities are afforded by tents of tubular framework which can be erected round three sides of the trailer to form dressing room and office space.

The National Coal Board are already doing a considerable amount of work in the prevention of airborne dust formation in the pits. One method of accomplishing this is to force water into the coal before it is cut from the face. The actual cutters and drills are fitted with water sprays and other sprays are provided at points where concentrations of dust are experienced—such as loading points where the coal is transferred from the conveyor into mine cars.



The new *Leyland* mobile X-ray unit. These will visit all types of coal mines throughout the country.

The Bartlett *Multipot* ensures a tea-break for every worker.

More and more British firms are coming to regard the provision of efficient, up-to-date canteens as a function of management proper as distinct from a welfare "concession." So the annual Hotel and Catering Exhibition at Olympia each year becomes more important to industry as a whole. This development will be much in evidence at Hotelympia, 1954, *which is being held from January 20-29. Some 180 firms are taking part, the range of exhibits covering kitchen equipment, fabrics, food, drink, heating, lighting, plumbing, transport and building construction. All these tie up with the industrial canteen which is now such a significant factor in production. And it is to this type of catering establishment that many of the products on view will be directed.*

How to Choose Your Canteen Equipment

By L. BANHAM, A.R. San.I., A.M.H.C.I.

THE following points are offered for your guidance and information regarding the buying of new equipment for your canteen. The "Hotelympia" exhibition serves a useful purpose in that one can see the widest range of products amassed together in one place and can make comparisons as to appearance and price. The selection is so great and the scope of the exhibition so wide that one is tempted to buy things which, though useful in themselves, are not always appropriate to one's particular needs. It pays, then, not to regard luxuries as necessities but to make up one's mind as to the things which are needed before visiting the exhibition.

The second point is to take someone with you who understands equipment, preferably the canteen manager or the head cook. **Much saving can result in permitting the head cook to select his own small items of equipment for his choice will be governed by the nature of the canteen in which he works.** The questions which the head cook will ask the demonstrator regarding equipment will certainly elicit more practical and detailed information than would arise from the questions of a layman. He will soon understand from the answers given whether the demonstrator really knows what he is talking about or whether he has been specially hired for the job of demonstrating a few given articles and has been given a primary gloss of training in their use and peculiarities.

The prices of articles of equipment of similar quality and function do not usually vary very much between firms. As in all other forms of trade, one has to pay well for a quality article and the policy of paying a fair price is one that repays the buyer in the long run.

Ovens

There is much to be said for buying ovens on the unit plan and building up the kitchen as the number of meals increases. The cook is not so impressed by the figure quoted for cubic capacity as by the figure representing the area of oven shelves and the number of shelves. The area of the shelf should accord with the sizes of baking trays and pie-dishes used in the canteen. No one would buy an oven whose shelves could not accommodate the size of baking sheet or pie-dishes used in his kitchen, yet it is equally important to ensure that oven space is not wasted by having 14-inch square dishes on an oven shelf 24 inches square. It pays to measure the relevant equipment before buying the oven, or conversely, measure the oven interiors before buying the relevant accessories.

Mechanical Equipment

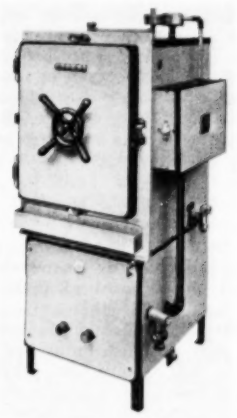
Electric mixers. Do not be unduly alarmed at the inevitable spate of

This new Benham cooking range has the austere grace of much contemporary furniture. It combines the useful with the attractive.

literature. Most of the information therein might be of interest to an engineer, but attention should be focused on capacities and typical mixings. Most electric mixers can be fitted with attachments which perform varied useful kinds of work, and if you are buying one, you might as well have your money's worth for the saving in labour costs is great. A useful point to observe is the question of maintenance of the machine, an edequate maintenance service being a *sine qua non* of such purchases.

Potato Machines

It is better to have two small machines than one too large for your needs. Size should be governed by the weight of potatoes, expressed in hundredweights, and the speed at which they can be trimmed and eyed after passing through the machine. Another factor in favour of two machines is that another is always on hand if one machine breaks down.



The new *Creda* steaming oven by *Simplex Electric*

Dish Washing Machines

Here again it is better not to be captivated by dimensions. If you do buy one, make doubly sure that your staff are properly instructed in the use of the particular model in order that full efficiency is gained from its use.

Tea-making Equipment

To simplify matters take your own particular blend to the stand of the Tea Bureau. You can be assured of the best advice possible and you don't even have to pay for it.

Five Buying Points

1. **Determine your canteen needs in advance.**
2. **Distinguish between luxuries and necessities.**
3. **Take your head cook with you.**
4. **If possible, ask for practical demonstrations.**
5. **Be prepared to pay a fair price for a quality product.**

Crockery

Cups vary in their capacity and in consequence so does your canteen profit or loss. The same applies to plates. A meal on a 10 in. plate does not look the same as a meal on an 8 in. plate. Measuring and portioning equipment should be bought with great care. It is no good buying a ladle and guessing the amount it will hold. In the portioning of meals profits depend on accuracy of measurement.

The buying of canteen furniture is really a matter of common sense and the realisation that if you want the best you should be prepared to pay for it.

Another new item is this stockpot stand by *Radiation Ltd.*

YOUR CANTEEN NEEDS ON DISPLAY

THE following summary pinpoints some of the main canteen equipment items of recent manufacture being displayed at *Hotelympia* by a number of the leading firms in this field. It is to be considered as a guide, not as a general review.

G. F. E. Bartlett and Son Ltd. (Stand 110/2, ground floor). A comprehensive range of tea service equipment (including their 2-gal. *Multipot* on tubular steel and leather harness) trolleys, insulated food containers and trolleys specially designed for hospital use.

Benham and Sons Ltd. (96/9, ground floor). Complete range of caterers' utensils and kitchen equipment, including complete composite fitting constructed on unit-built system, and a cafeteria service counter embodying latest features for speedy service. Equipment fuelled by gas, electricity and oil will be on view.

Carron Co., Carron, Falkirk (53/4 & 61/2, ground floor.) Electric, gas and solid fuel ranges, also gas and electric hotclosets, and electric baking oven and a steam boiling pan. Another feature is a stainless steel sink unit and a steam-heated calorifier. The display includes several new appliances.

Dawson Bros. Ltd., Woodford Green, Essex (84/5, ground floor). Model "A" (300 meals), Model "B" (600 meals) and the *Deluge* minor dishwashing machines, the last for the small canteen (50 meals), together with a new glass-washing machine.

Euk Catering Machinery Ltd., Oldham (22/3, ground floor). Wide display of stainless-steel units, especially boiling pans, frying ranges and dish washers. Also bread slicers, butter patters, chipping machines and crisp cutters, toasters, vegetable peelers, incinerators and trolleys. New plant includes a boiling pan with pan, hob and outlet all one-piece welded stainless steel.

Gardiner and Gulland Ltd., London, S.E.13. (1/4 Ground Floor). Complete new range of back bar units and recently designed cafeteria counter equipment. The first includes a refrigerated salad preparation unit, hotcloset and "called order" units and the second the *Sweetfreeze* sundaes display cabinet. Also soda fountains, hospital food conveyors and other appliances.

Jackson Boilers Ltd., Leeds 11. (81 & 100 ground floor). Boilers, café fountain set, tea- and coffee-making equipment, milk and water heaters. Also on display will be their new *Cafetomaton*, a self-contained, fully-automatic unit which provides constant hot water, makes tea or coffee, heats milk and stores the lot at correct temperatures. Containers stainless-steel lined and self-filling.

Peerless and Ericsson, London, S.W.1. (78/9 and 102/3 ground floor.) Standard ranges of mixers, moulders, baking ovens, mincers, choppers, chippers and peelers. New machines include a 7 lb. potato peeler with detachable bottom plate, their Q.20 mixer with attachment hub, and a new potato chipper with a capacity of 40 lb. of chips per minute.

Pressed Steel Co. Ltd., Cowley, Oxford. (67, ground floor.) Representative range of *Prestcold* refrigeration equipment, including new service cabinets and sealed hermetic units, conservator for frozen foods or ice-cream, fish cabinet, hors-d'œuvres cabinet and range of domestic refrigerators.

Radiation Ltd., London, W.1 (152, ground floor). Comprehensive selection of large-scale cooking equipment—gas- and steam-heated, including the *Lune* boiling pan with die-cast aluminium interior. One new item is the stockpot stand (No. 18/53) designed to meet the demand for a boiling table for heating small stockpots.

Rowe Bros. and Co. Ltd., Liverpool 3 (45/6, ground floor). Full range of peeler and crisping machinery, tea boilers and the like. Other features will include the *Peck-Mix* food mixer, a complete electric self-service counter, and a new 7-lb. peeler (called the *Rowe Regina*) priced at £27 10s.

Staines Kitchen Equipment Co. Ltd., Westminster, S.W.1 (136/8, ground floor). Main feature on exhibition of their new de luxe stainless steel *Splendid* crockery washing machines (introducing a completely new enclosed gearbox) designed for washing-up for some 200-250 people. Also on view will be a *Splendid* glass-washing machine and comprehensive range of portable kitchen equipment and utensils.

W. M. Still and Sons Ltd., London, E.C.1 (18 and 31/3, ground floor). Complete run of service countering, including plain and service topped hot closets, tea and coffee service units and cold service sections. A new feature will be their large capacity dish washing machine capable of handling up to 8,000 pieces per hour.

James Stott and Co. (Engineers) Ltd., Oldham. (7/9 ground floor.) Practically all exhibits modernised or new, including a new deep fryer capable of cooking 35 lb. of chips per hour, and a new range of stainless light-weight trolleys. Also hotcupboards, boiling pans, ham cookers, multipots, etc., and a new electric water boiler for large quantities in a short time.

Sumerling and Co. Ltd., London, W.1. (114/5 ground floor.) Display includes a section of snack bar countering, a new pattern steam cooker, service tables and hotcupboards, water boiler and side urns, and a special section for a display of kitchen utensils and accessories.

The Industrial Canteen— Past, Present and Future

By WINIFRED McCULLOUGH

Senior Canteen Adviser, Industrial Welfare Society

THE word "canteen" is used today to refer solely to two so-called Cinderellas of catering . . . the soldier's mess and the factory dining room. It would be well for other branches of catering with higher prices, more elaborate menus and more glamorous premises, to remember that Cinderella finally married the prince. But that is by the way.

Eating together at work began when England was divided up amongst the Lords of the Manor and when each Lord regaled his household, his family and his workers with a good blow-out in the middle of the day. The Lord and his Lady sat above the salt and the rest sat at their degree at table on wooden stools or on benches in the window embrasures.

The drink was ale or small beer and — a forerunner of canteen troubles to come—there is ample record of grumbling at the weakness or sourness of the ale provided. The lunch break incidentally was about three hours in length and was the only food taken by workers of the lowlier sort between a dawn start and a dusk finish of hard manual labour.

The new *Stott* Deep Fryer.

By the time of the Industrial Revolution men, women and children were working in great numbers in the towns. Whole families laboured and the domestic crafts of growing, preparing and curing food, fell into general disuse.

This time, perhaps the lowest ebb of English feeding, saw the real beginning of canteens as we know them today. Robert Owen opened a dining hall where his workpeople could get a good meal and avoid the high prices charged by hucksters at the mill gate. Titus Salt built his woollen mill and opened his canteen in the lovely Yorkshire valley where dinners are served in the same building to this very day. Cadbury, Rowntree and may others followed. The canteen, *as a welfare service*, was an established part of industry.

The War Years

The 1914-1918 war saw many canteens opened but the depression that followed closed most of their doors again, but, in 1939, the canteen really took its place once for all as an integral part of most industries. The firm on war production employing over 250 people was legally required to open a canteen and hundreds of licenses were taken out weekly. In 1943 the requirement widened to include "all firms on work of national importance." This was the hey-day of the factory canteen. People bought anything and everything the canteens could sell since, far from being short of money, they had more money than there were goods to spend it on. Foods were subsidised and prices fixed at a low level. Dinners at a shilling and tea at a penny a cup produced takings big enough to cover the cost of consumables, labour, fuel and light replacements. The war ended, and, one by one, the conditions changed.

Today foods are virtually unrationed, and, in most cases, un-

subsidised. Money is harder to come by and there are more and more things competing for the worker's spending power. Less women are at work so more home-cooked meals are available. The gap between canteen income and expenditure has widened month by month for the past five or six years. Today food prices are in some cases stable—in some showing a slight fall—in some rising still. Wages are higher and show no signs even of staying at the present level. The canteen picture therefore is one of selling prices very little higher but of a considerable increase in cost of every material and every service paid for.

These conditions have been a challenge, met for the most part with some success. Greater care in buying, rigorous cutting out of unnecessary labour and better organisation have made it possible for many canteens to carry on with only nominal price increases. **Firms, too, have increased subsidies with great willingness in the belief that the good canteen is a service to the health and happiness of the labour force and an aid to production.**

Catering managers are of a better type and a higher technical skill now than ever before, but there is still a grave shortage of trained, experienced men and women for this important work. There is still too a backlog of the "anything will do for a canteen" type of thinking engendered by war conditions, and of an unwillingness to try new menus because "it has always been done this way."

Serve Well and Quickly

These latter points came out pretty clearly at a recent conference for canteen managers held by the Industrial Welfare Society at Grange-over-Sands, where the concensus of opinion, however, was that any catering establishment of any size can serve good varied food—serve it well and serve it fast—if the person in charge is a good caterer and a good manager.

Costs, as such, were not on the agenda of the conference, but talk about costs raged furiously from breakfast table to late-night tea. Most delegates knew exactly how much they could spend on a meal and still meet their budget. Most knew exactly the cost policy laid down by their firm and could tell to a decimal point whether it was possible or not.

The truth is that a canteen dinner of meat and two vegetables must be sold at 1s. 3d. or it must be subsidised. Whether the subsidy comes from the management or from the sale of tea at 2d. and cakes at 3½d. the fact remains the same. The truth is that to buy from hand to mouth, to cook without standard recipes and have no fixed portions, will make both food and labour costs higher than they need be. The truth is that a caterer who can't realise that he is now operating on a buyer's market (*and so are his customers*) will lose trade and lose heart. The truth is that no canteen can be operated today as it was in the war or immediately after the war. Food must be made to look and smell and taste attractive. It must be *sold* and not simply offered for sale.

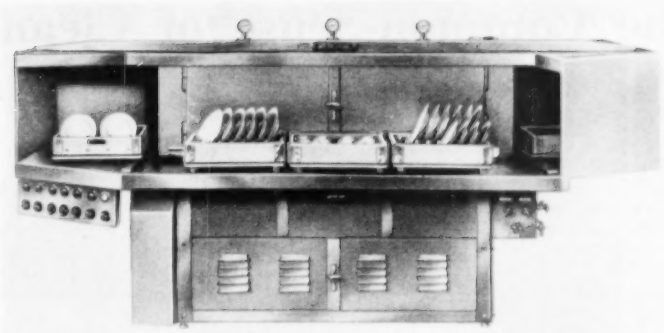
The amount of money firms are willing to spend to bring good food within the spending power of their employees differs widely. Some can afford nothing more than to provide premises, lighting and ventilation. Others are willing to pay for all except the actual cost of the food. Subsidies range from £8 10s. 0d. per employee, per annum, to 10s. per employee, per annum. The average is probably around £2 10s. 0d.

The number of workers using canteens for cooked meals is in point of fact causing a good deal of uneasiness. Very few canteens serve dinners to more than one in three of the potential customers. But although less actual dinners are eaten, the amount of turnover in canteens has not generally fallen very greatly. There are more pies, chips, filled rolls and sandwiches eaten and less "meat-and-two-veg." The reasons for this are perhaps three:

1. A mistaken feeling that it is more economical not to eat a hot meal.
2. The greater variety of foods available making it possible for a hot meal to be served in the home every evening.
3. The low standard of hot meals available in some canteens in the past.

The first "reason" is irrational and can only be dealt with by clear price lists well displayed and by a word in season wherever possible. The works doctor and nurse, for example, could be asked to help with this. The second is a genuine change in the nation's eating habits, and, on the whole, good. Nothing can be done about it. The third gives the greatest scope for improvement. If dinners improve in variety, in content, in cooking, and in presentation, the demand for them will improve too.

The canteen is here to stay. It is a department of the factory, and, as any other department, it must operate to a clear policy. Which means that it must have a well-defined place in the management plan and be run efficiently by a person with the training, character and experience needed for the job.



A Swiss giant at *Hotelympia* will be this *Wefcoma* dishwasher by W. E. Frech and Co., Lucerne. It has three water tanks, eight transporter carriages and is completely automatic.

An Efficient Canteen

1. Is run as a works department with a clear policy.
2. Must have a first-class catering manager.
3. Really **sells** its food; does not simply offer it for sale.
4. Combines variety with attractive presentation.
5. Has clear, well-displayed price lists.

The Common-Sense of Clean Catering

By F. M. FINCHAM

PUBLIC opinion is, and has been for some time now, directed to the importance of absolute cleanliness in the care of foodstuffs. Occasional but too frequent outbreaks of food poisoning, however, show that there is a considerable amount of educational work left to be done in this field. Illness from food poisoning is not only most unpleasant for the sufferer but can prove fatal, and the loss of working time involved, whether as regards breadwinner or the schoolchild, is a serious matter. It may be that our standards were higher before the war. Certainly the habit of feeding out had to increase during the period of strict rationing and it seems likely that the habit has become established.

A Matter For Everyone

No one can afford to "sit upon the fence". The eradication of illness caused by unclean food is a responsibility of every man and woman, a fact Dr. W. Clunie Harvey and Mr. H. A. Perry most rightly emphasise in their *Food Hygiene Handbook* published a few months ago. In a small book it is impossible to go into great detail of requirements for each section of the food industry. But the book goes much farther than is possible in pamphlets, designed, for the most part, to reach those food-handlers who are workers in the food trades, and should therefore be studied by management of food establishments who have the responsibility of teaching those working for them, and also by the general public.

The first section on prevention is devoted to the *absolute necessity* for personal hygiene. The simple fact of frequent hand-washing by all those who prepare food, would go far to reduce the number of cases of poisoning occurring. If the individual food-handler will not accept his responsibility then the effect of good premises and equipment will be much reduced.

Food storage, with particular reference to refrigeration, is the next subject. The rules for use and care of the refrigerator are very clearly given and could well be used as a basic checklist by the supervision of food establishments.

The problems and legal obligations of the individual food trades are dealt with and suggested amendments and desirable additions to the present law given. Extracts from the working party recommendations for catering establishments are included: for instance, the standard and the target codes, methods of washing up by hand and machine, how to make bacteriological tests on cutlery and crockery. Appendices give the main requirements for the dairy industry, ice-cream manufacture, meat products manufacture, abbatoirs and slaughterhouses.

There is a very useful chapter, illustrated, on pests particularly likely to attack foodstuffs, and giving advisable precautions and methods of combating infestation.

As one with especial interest in canteen and other catering staff, I was glad to see mention made of the need for good staff conditions. That staff should not be overworked, that their continued good health should be taken care of, are facts in maintaining high standards of food hygiene, for the tired worker feeling under par is likely to be careless.

The final chapter on the future puts concisely the main requirements, educational and legislative, for reducing to the minimum the dangers from food poisoning. There are excellent illustrations; those of Marks and Spencer establishments should form an object lesson to other organisations.

Dr. Harvey's and Mr. Perry's book should prove extremely useful to anyone connected with the food trade particularly if he holds a responsible position and has to train food-handlers in their job. The language is non-technical and it can therefore be recommended to the layman on whom, after all, the onus falls of insisting that greater attention is paid to hygiene in all stages of food preparation. *Food Hygiene Handbook* is the ideal companion volume to *Clean Catering*, published a few weeks ago by *H.M.S.O.* (see this journal, November, 1953, page 226). The conscientious catering manager will make both of them a "must".

Cleanliness begins with the preparation of food. This new *Q.20* mixer by *Peerless and Ericsson* has been so constructed as to make for easy cleaning as well as for easy working.

A SMALL FIRM EXPLOITS IDEAS

(*continued from page* 214)

however, is not only the efficacy of fresh ideas and persistent enquiry, but also, in allowing these the fullest possible expression, they have achieved what Sir Ewart Smith, I.C.I. technical director, advocated at the B.I.M. conference two months ago. They have made work "interesting and fun".

Lastly, there are the material advantages which the Krisson outlook has made possible. First, there is the 40-hour week, by no means general in the printing trade, while wages are above the recognised rates and are backed by bonus and incentive schemes as well as by a very generous pension scheme. And apart from pension on retirement, workers are covered by a substantial life-insurance. Nor, while discussing general conditions of employment, is it irrelevant to stress the general atmosphere of the premises: cheerful and—through an intelligent use of colour, light, posters and the like—alive, while the problem of space has been solved by the introduction of new systems and storage devices.

Krisson's achievement, of which they are justly proud, is for export to any small firm which is prepared to contribute the necessary energy and imagination. Any manager or supervisor could do worse than include a visit to the works in his 1954 programme.

I.W.S. Formula For "More Effective Work"

"A TESTING time for management-labour relations and welfare in industry" is how John Marsh (director) describes 1952-1953 in the latest *Annual Report of the Industrial Welfare Society*.

"The emphasis has been to a greater degree on productivity—better described, perhaps, as 'the need for more effective work from everyone.' It would be true to say that there has been more awareness on the part of managements and trade union officials during the last year or two of the need for greater productivity; but it is doubtful whether office and manual workers as a whole appreciate this need and how it is to be achieved. There are, as yet, few successful schemes whereby workpeople are enabled to comprehend how their own better work can help the local—let alone the national—situation. The Society is convinced that only in an atmosphere of sound human relationships will there be any real chance to achieve such productivity as the country needs."

New trends noticed during the year by the I.W.S. include:

Further interests in the relationships and working conditions of office workers.

A great extension of training, accompanied by a grave shortage of training officers.

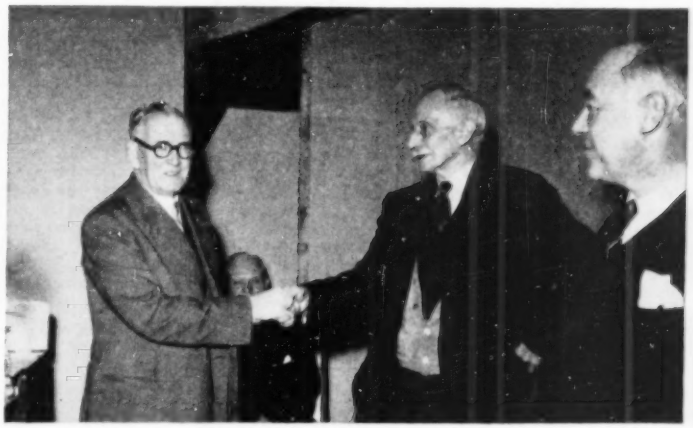
A more realistic attitude to joint consultation, resulting from greater attention to day-to-day informal communication channels.

The Minister's View

The Minister of Labour, Sir Walter Monckton, added his opinions on December 9 when he spoke at the Society's annual dinner in London. He called for a new conception of industrial democracy which got away from "sides" and "areas of conflict". This was needed to get through what was sometimes called the "second phase of the Industrial Revolution" and to emerge a nation of happy and prosperous people.

"It will help us on our way if the old employer-workpeople relationship can be gradually developed into something nearer membership of a working team" said Sir Walter. "This may seem to you a distant dream, but, in spite of discouragements I do not think so. The change will certainly not be brought about by Government or employers or workpeople alone. It calls for a greater measure of give and take, of working together, than even we in this country have so far been able to achieve in our industrial structure. Certainly we cannot afford to look backward to outworn methods of discipline or to practices that had as their objective the furtherance of sectional interests."

STAFF SUPERINTENDENT'S HALF-CENTURY



Mr. W. J. Marchant, staff superintendent of the British Vacuum Cleaner and Engineering Co. Ltd., Leatherhead, being congratulated upon attaining fifty years' service with the company by Mr. H. Cecil Booth, F.C.G.I., M.I.C.E., inventor of the vacuum cleaner.

Education And Industry

SPEAKING at a Birmingham conference of Midland industrialists and educationists, Sir Arthur P. M. Fleming (Associated Electrical Industries) and Sir Hugh Chance (Chance Bros.) made an appeal for more opportunities to be given to young employees to continue their education after the normal school leaving age. Employers and local education authorities could do much in voluntary co-operation. Even small firms in combination could do what a number of larger concerns were already doing. Under such voluntary schemes the number of employees already receiving part-time education in the day-time had risen from 42,000 in 1939 to 300,000 in 1952, but a much greater effort was needed.

Many employers were aware of their responsibilities as regards technical education, but Sir Arthur Fleming said that the technologist should be allowed to develop as a whole man and not as a lop-sided specialist, and Sir Hugh Chance asked for consideration to be given to the educational needs of the great army of semi-skilled and unskilled workers.

Residential Refreshers

CLAIMED by the organisers to be the only residential college of its kind in this country, the Beeches College, Bournville, was established at the end of the war and has developed and expanded during the last eight years to meet the requirements not only of people starting up in new businesses but also of those with some experience in the trade who feel the need for a refresher course.

More than 660 grocery students and 671 confectionery students have attended the College, and of these 427 of the confectioners and 32 of the grocers were women.

Too Many Accidents

NEARLY 700 delegates from all over Scotland, and many parts of England, attended the recent Scottish Industrial Safety Conference held in Glasgow under the auspices of the Scottish Industrial Groups Advisory Council. In his opening speech, the Minister of State for Scotland (the Earl of Home), deplored the high incidence of accidents in Scottish industry and appealed for greater interest in the local industrial groups, of which there are now ten established in Scotland.

Not Just Another Circular

SOME 50,000 manufacturers throughout the country were sent a letter last month by Mr. D. Heathcoat Amory, Minister of State at the Board of Trade, offering them practical help in the matter of their export trade. "We want to be sure," he wrote, "that no firm which could export, or could export more, is failing to do so; and that we, for our part, are doing everything we can to help."

Some ways in which the Board of Trade could help were made in a leaflet enclosed with his letter, and manufacturers were asked to send back by return a pre-paid postcard asking certain questions about the "exportability" of their products.

New Control Centre for Capital

OPENING Kensington's new Civil Defence Control Centre on November 28, the Home Secretary (Sir David Maxwell Fyfe), described newly-designed fire-fighting appliances for use during an atomic bomb attack. They included vans that could lay a 6 in. hose at the rate of 30 m.p.h.; powerful fire engines capable of pumping a huge volume of water through those hoses and over considerable distances; and small pumps which were light enough to facilitate carriage by two men and which could throw four good jets of water on a fire.

Sir David spoke of an experimental static water tank that could be rapidly assembled from sections made of fibre-glass so light that one man could lift a section which would take several men if it were of steel construction. These tanks were designed to be fed by flexible plastic piping which could be laid by a small squad of men at the rate of 4 m.p.h. In addition, there were the mobile vehicles for the control of fire-fighting units.

Despite all the fine equipment which he had enumerated, the Minister warned against complacency. To date, we had made an encouraging start. But it was a mere fraction of what was yet to be accomplished.

Work for the Elderly

MR. HAROLD WATKINSON, M.P., Parliamentary Secretary to the Ministry of Labour and National Service, began on December 10 a series of visits to some of the firms which have a notably good record in the employment of older men and women. Mr. Watkinson, who is chairman of the National Advisory Committee on the Employment of Older Men and Women, hopes to meet the managements and talk to the older workers themselves in these firms.

Mr. Watkinson's first visit was to Messrs. Elliott Bros., Century Works, Conington Road, Lewisham. The efforts of the firm are quoted in the Advisory Committee's Report as an example of what can be done for the older worker. *The firm employs, at one of its establishments, sixty-nine men over sixty in skilled and unskilled occupations, thirty of whom have started in the last two years. It has also eight women employees who were over the age of fifty-five when they started.*

Better than Cure

"PREVENTION rather than extinction" is the motto of the Bournville Fire Brigade, adequately borne out by its fine record. The Brigade, which came into existence over half a century ago, comprises five officers and twenty men, two of the officers holding full-time appointments.

When a vacancy occurs in the Brigade, notices are circulated in the factory and offices. Applicants must be under 25 as the work is strenuous—it takes at least three years to train to attain competition standard. Entrants are subject to a medical examination and various tests. There has never been any lack of recruits whenever a replacement is needed. All training is done in the men's own time and there is a scale of payments.

IN BRIEF

BY the National Insurance (Industrial Injuries) Act, 1953, which came into force in August last, minor adjustments are made to the principal Act of 1946. The new Act extends the classes of persons eligible for certain benefits and the amount of benefit payable under s.82 of the Act. An important provision relates to disablement benefit which can be paid for any disablement—due to accident or disease—and which is assessed at 1 per cent or more. Disablement no longer has to be permanent or substantial to qualify for benefit.

* * *

TOTAL membership of trade unions in the United Kingdom at the end of 1952 was about 9,524,000 the highest figure ever recorded. The number of unions at the end of last year was 690, compared with 709 at the end of 1951.

* * *

PARTICULARS of schemes for recruiting and training young persons for industry have now been announced for the following industries:

Agriculture and horticulture (England and Wales); asbestos manufacturing (textile section); building brick and allied industries; builders' merchants' industry; cast stone and cast concrete products; chemical and allied industries; forestry; glass processing; vitreous enamelling (England and Wales).

* * *

A RECORD number of overseas representatives visited the recent Silver Jubilee Building Exhibition at Olympia. The largest groups of overseas visitors came from Sweden, Finland and Holland. Representatives of all the Dominions and most European countries were also present. Total attendance at the exhibition showed an increase of 20 per cent over the 1951 figure.

SEVEN employees at Northern Aluminium Company's Handsworth works, were recently presented with aluminium watches in recognition of their twenty-five years' service to the company. The presentations were made by the managing director, Mr. F. W. Bruce, and the recipients were Messrs. W. Adams (painter), R. Davies (chargehand diecaster), R. J. Hall (toolroom foreman), S. Law (die fitter), J. Olbrechts (carpenter), E. Parkes (grinder) and L. A. Stokes (stamper).

* * *

TWO employees of Greengate and Irwell Rubber Co. Ltd., who have completed fifty years' service with the firm were each presented with a cheque for £50 at Christmas. They were Mr. J. Ridings, footwear sales manager, Greengate Works, and Mr. G. Dale, warehouse assistant, Canning Town.

* * *

SIR GRAHAM CUNNINGHAM, chairman and managing director of the Triplex Safety Glass Co. Ltd., has informed his firm's main profit-sharing committee that 7 per cent shall be paid to all eligible employees this year.

* * *

FIRE Protection Year Book, 14th edition, 1954 (*Benn Bros.*, 12*s.* 6*d.*) incorporates several new features, including a directory of local authority civil defence officers in the United Kingdom and a revised section covering civil defence organisation. Reorganisation of the directory of chief regional fire officers designate and senior Fire Service and Salvage Corps officers has also been carried out in the interests of legibility.

PEOPLE

MR. A. A. ATKINS, education officer at Samuel Fox and Co. Ltd., Stocksbridge, for the past two years, is taking an appointment as chief education officer to Birfield Industries at their training centre near Stratford-on-Avon.

M. P. BACON, French Minister of Labour and Social Security visited London last month for discussions with his British counterparts, the Minister of Labour (Sir Walter Monckton) and the Minister of Pensions and National Insurance (Mr. Osbert Peake).

MR. W. L. BEEBY, O.B.E., has been appointed director of The Edison Swan Electric Co., Ltd., and, as director, will be in charge of manufacture. Since the war Mr. Beeby has been engaged on enlarging and re-equipping Metropolitan-Vickers factories to meet constantly increasing output demands.

(*Continued on page* 338.)

Grandfather wrote on the backs of envelopes

More than one successful private company can tell a story of the small economies practised by its founder. It was not meanness but method; an attitude of mind watchful, modest, yet confident. But to many a family-controlled business today that innate confidence can spell disaster!

Whatever the real value of such a Company as a going concern, Estate Duty today is assessed at the death of a controlling Director on an **assets** basis, and the liability so created may be greater than the total realisable value of such a Company in a forced sale.

The Noble Lowndes Pension Service has solved many such problems of family concerns by advising on means of providing for this liability without liquidating the business.

Their accumulated knowledge and experience of this highly technical subject are freely at your disposal. Enquiries are dealt with confidentially by the Managing Director

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- **HAND Towels, Turkish or Huckaback**
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For a small weekly fee.

All towels, etc., are kept in good repair and when necessary replaced without additional charge. Specially reduced rates are quoted for large numbers. No quantity is too large or too small for UNITED to handle—speedily, efficiently and at the lowest possible cost to you. There is no commencing charge or deposit.

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New Industrial Equipment

EXECUTIVES' SURVEY OF AIDS TO INCREASED PRODUCTION

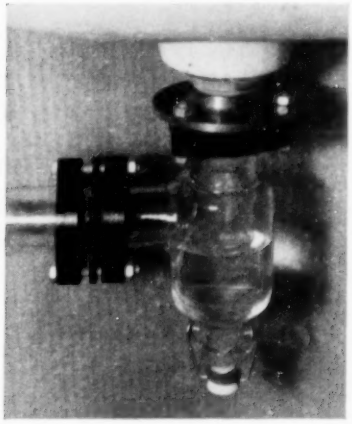
Readers who wish to know the suppliers of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph. We are always glad to consider for publication descriptions—preferably accompanied by an illustration suitable for reproduction—of new products.

Canteen

EFFICIENCY AT THE SINK

A NEW sink trap which can be easily fitted has now been produced. The trap, made entirely of *Pyrex* glass, is claimed to reveal at a glance any sign of clogging in the waste pipe. The makers have fitted a stopper to the base, which can be unfastened from its spring in a moment, to release the waste accumulation.

The trap is made in all sizes to fit standard sink waste outlets and requires



no tools to open it for cleaning nor are there any detachable parts to get lost. Metal flanges connect the trap to the sink and outlet pipes and the glass is designed to resist every form of corrosion. **(PM/722.)**

SOFT DRINKS DISPENSER

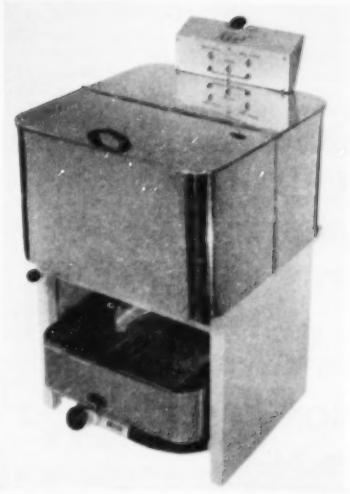
A UNIQUE, coin-operated electric automatic bottle-vending machine for dispensing cooled soft drinks has recently been released on the home market. It is designed for installation principally in factories and industrial organisations where, it is claimed, its application will effect considerable time-saving in break periods.

Measuring 5 ft. 3 in. in height by 2 ft. 2¼ in. in depth, the machine has a net weight of approximately 3 cwt. Its full load varies according to the

diameter of the bottles stored. It is operated by the insertion of a sixpence. The insertion of the coin causes the machine to eject a bottle and, from another slot, a straw. A bottle opening device is also attached. **(PM/723.)**

COMPACT DISHWASHER

THIS new dishwasher is said to be specially designed for catering

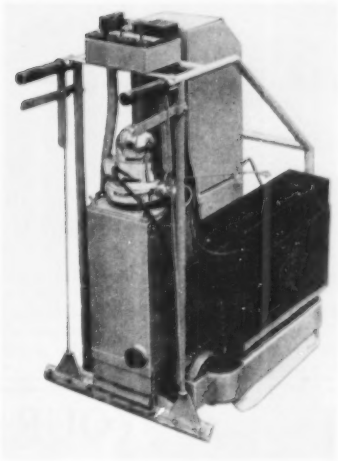


establishments handling up to approximately 100 meals per hour, and is completely self-contained, incorporating reservoir tanks, immersion heaters and water pressure pump. Being compact and simple to install, it is suitable for kitchens where space is limited. **(PM/724.)**

Efficiency Aids

POWERED FLOOR CLEANER

THIS new self-powered cleansing machine is battery-operated and, therefore, free from trailing cables. This machine, the first of its kind, is claimed to enable one man to scrub,



clean and dry 400-500 yards an hour without impeding production. It is particularly suitable for treating those floors where compacted oil and grease have made the surface treacherous, and will also cope successfully with both canteen and office flooring of all types.

In operation the cleansing solution is gravity fed from its 4-gal. tank to a sprinkler system immediately ahead of the brushes. Then, as the machine passes over the scrubbed portion of the floor, the dirty water is piled up by trailing squeegee rubbers attached to

the suction bar at the rear and sucked vertically up into the other half of the tank. **(PM/725.)**

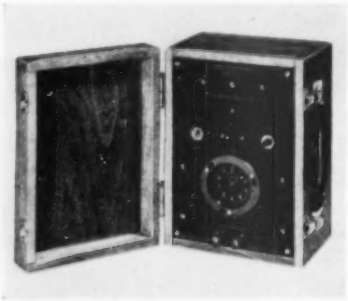
NEW RATCHET HOIST

INCORPORATING an overload preventer device which takes the form of a friction clutch, this new ratchet hoist is small and compact and light in weight. In the event of excessive overload, the makers state that the clutch will slip, making the lifting operation impossible, yet, at the same time, the load will be sustained. This overload preventer safeguards the operator and reduces wear, with consequent saving in cost of repairs and maintenance.

Another feature is the use of short link pitch chain which is flexible in all directions, as opposed to the roller-type chain normally fitted to this type of hoist which is flexible in one plane only. **(PM/726.)**

NEW TIME METER

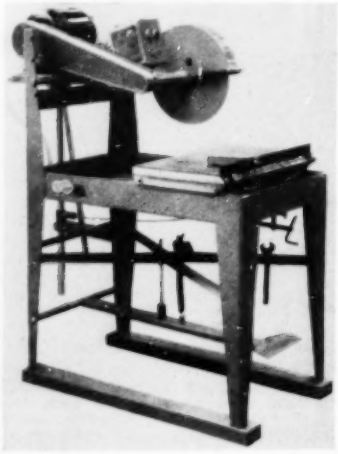
THIS new time interval meter has recently come on the market. It is claimed to be self-contained, portable and simple to operate. As the power is provided by two standard deaf-aid dry batteries, it is independent of mains. The start and stop are controlled by closing an electric circuit, and times can be recorded automatically by means of a standard N.P.L. quality stop-watch incorporated in the instrument.



Resetting may be remotely controlled if required, or is effected by a built-in push button. The watch is instantly removable for rewinding. The whole instrument is in fact quickly removable from its case and the batteries easily replaced without touching any plugs or loose wires. **(PM/727.)**

QUICK, EASY CUTTING

A PRODUCT of interest to industrial materials manufacturers, is a new masonry saw. It is a light machine which, it is claimed, cuts building brakes, kiln blocks, sanitary pipes, flue linings, asbestos, porcelain, fire bricks and even concrete slabs, severing them in a matter of seconds.



Originally an American product, the machine is now being manufactured in this country. It runs in an anti-clockwise direction, and provides the operator with adequate safety protection in the event of a broken wheel. It is also provided with a built-in water supply to keep down dust. **(PM/728.)**

FOR BRIGHTER WALLS

A NEW type of enamelled presdwood has recently come on to the market which has a stoved plastic finish on ⅛ in. thick standard presdwood obtainable in plain or tiled design. It can be fixed to either timber grounds or direct to concrete or plaster walls by the use of adhesives, say the makers, and is suitable for lining canteens, washrooms and the like. It is supplied ex-stock in green, cream and white, and any other colour supplied to special order. **(PM/729.)**

WAGES AT A GLANCE

NOW available is a wage calculator which contains eighty-four tables of wages, varying from £2 4s. 0d. to £9 13s. 0d. per forty-four-hour week, calculated to the nearest penny and showing the exact amount of wages due for any number of hours worked up to a maximum of seventy-two (weekdays) plus eleven on Sundays.

It is said that the wages clerk will find the booklet dispenses with the need to calculate each man's wages separately, for whatever his rate of pay, or the number of hours worked, the amount due is shown at a glance. **(PM/730.)**

First-Aid

TUBULAR FOLDING AMBULANCE CHAIR

THIS new chair is specially designed for ambulance work, being very light and strong and so constructed that it can be used for the most awkward stair work. It is easy to clean and hygienic in use, with the hand grips making for easy manipulation in and out of the ambulances. When folded, it requires the minimum amount of space for storing and can be attached to a bracket in the ambulance or on a wall. **(PM/731.)**

FOR YOUR CLUB

Blazers — Badges

Buttons — Ties

Colours, etc.

Consult the Club and Services Tailor

DOMBEY & SON

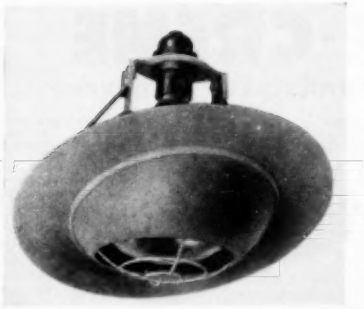
99 Leadenhall Street, London, E.C.3

Lighting

RECESSED LAMP FITTING

THIS new spotlight fitting is claimed to be a convenient unit for recessing a 75-watt spotlight into a false ceiling. Simple in design, the fitting consists of a steel hemisphere with a central aperture behind which the spotlight is mounted. This unit rests on a felt ring supported by a steel "halo" plate which may be flush with the surface of a false ceiling. The lamp unit rests freely yet firmly upon the felt and may be trained in a cone 30° about the vertical axis. A grille across the aperture in the lamp unit protects the crown of the lamp. The whole fitting is finished in cream crackle enamel.

(PM/732.)



Health

COMMON COLD CURE?

NOW on the market is a newly developed preparation which, claim the makers, is a most effective safeguard against the common cold, a complaint which has been computed to cost industry more than 100 million man-hours annually. This preparation is said to eliminate bacteria and viruses by way of physical action based on the ionising effects of a new form of finely dispersed silver. A few drops of ionic silver suspension applied to each nostril, claim the makers, stops sneezing at once and if the application is repeated at about three-hourly intervals the development of a cold is averted. Other uses for such silver preparations are in cases of lumbago, fibrositis, sciatica or other forms of rheumatism. The makers also say that such preparations make first-class deodorants.

In addition, it is stressed that ionic silver protects the skin and has proved an excellent mouthwash in numerous cases. **(PM/733.)**

The new visor *(PM/721)* mentioned in these columns last month. It has specially wide vision and can be worn with prescription spectacles.

NEW TRADE LISTS

Handling Equipment for Drums, Barrels, etc., from Powell & Co. Ltd., Burry Port, Carms., South Wales.

Machine Tools: from F. J. Edwards Ltd., Edwards House, 359-361 Euston Road, London, N.W.1.

The man you want is near at hand . . .

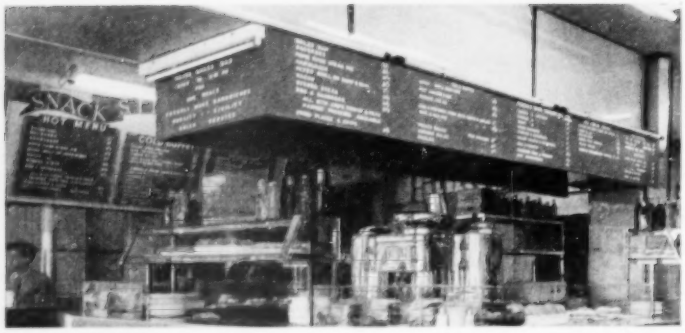
A timely advertisement in the classified columns of the DAILY HERALD will catch his eye. Employers all over the country use this medium for finding skilled replacements for every trade and craft. Why? Because of the 5,400,000 readers of this newspaper MORE THAN HALF are skilled workers. The following are typical DAILY HERALD reader groups:—

Manufacturing and Industry - -	1,060,000	Mining and Quarrying - - - -	280,000
Building and Engineering - - -	580,000	Transport and Communications - -	270,000
Commerce, Finance & Professions -	390,000	Distributive Trades - - - - -	250,000

The swiftest and most economical way to secure new skilled staff is to advertise for them in the classified advertisement columns of the

DAILY HERALD

Rate 15/- per line. Communications should be addressed to Classified Advertisement Manager, Daily Herald, Acre House, Long Acre, London, W.C.2. Temple Bar 1200, Extensions 454 and 466.



MAGNETIC WORDS

THESE magnetic letters and figures (illustrated above) are, say the makers, eminently suitable for a number of industrial purposes. As they can be assembled and dismantled very quickly, having no controlling slots or holes, they are a first-class means of displaying up-to-the-minute notices about a firm's activities, announcements, canteen menus and the like. The signs are stove-enamelled and, therefore, washable, while the magnetism is said to be sufficiently strong to defy vibration and to last indefinitely. Metal backgrounds, framed and unframed, also glazed and framed, can be supplied. (PM/734.)

PREVENT LAMP THEFT

USE THE "GLAMAT" LAMP PROTECTOR

which marks your name indelibly on electric bulb or glassware by simple operation. Outfit comprises Patent Stamp, Solution, Pad, Brushes, Numbering and Dating Stamp.

THE GLAMAT CO.
202 Abbey House, Westminster, London, S.W.1
'Phone: ABB 6707

KOPE-CREME
Antiseptic Handstain Remover

Quickly Removes Ink Stains

caused by handling Printing Machines Duplicators, Typewriter Ribbons, Carbons, Ball Pens, Stamp Pads, etc.

Retail Price 3/- per Tube, *Tax Free*

★ Also in Liquid form 4oz. 3s. 8oz. 5s. 20oz. 10s. 6d. Bottles TAX FREE

The Standard OFFICE SUPPLIES CO
Telephone: CHAncery 5561 (6 lines)
57, FARRINGDON ROAD, LONDON, E.C.1

Supplied in Cartons of 1 doz. Tubes

THE ROYAL COLLEGE OF NURSING EDUCATION DEPARTMENT

Industrial Nursing Certificate Open Examination

With a view to safeguarding the status of the experienced industrial nurse working in industry but not holding an industrial nursing certificate, the Council of the Royal College of Nursing has resolved that the examination for the Industrial Nursing Certificate shall be open on three occasions only—in the summer of 1955 and on two successive dates subsequently—to General Trained State Registered Nurses working in industry or commerce who have had not less than five years' full-time industrial nursing experience before 31st July, 1954. Candidates for the open examination will be required to register with the College at least one year prior to the date of the examination for which they elect to sit.

Full particulars and regulations with regard to this examination may be obtained from:

THE DIRECTOR, EDUCATION DEPARTMENT, THE ROYAL COLLEGE OF NURSING
1a HENRIETTA PLACE, W.1

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OVERALLS *for* **MEN** *and* **WOMEN** *in every Trade*

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The CANNON Sanitary Towel Disposal Bin fits unobtrusively into any corner. Completely safe in operation, its acid charge will dispose of upwards of 120 towels without fuss or odour. It is inexpensive and highly efficient.

For Lavatory Cisterns the CANNON automatic dispenser ensures complete disinfecting and hygienic deodorisation with each flush. Write to Cannon's of Morecambe for full details of these aids to factory hygiene.

CANNON
SEVEN BUILDINGS
WHITE LUND, MORECAMBE

Summary of Official Publications

READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

STATUTORY INSTRUMENTS

No. 1556. The Coal Industry (Workmen's Compensation Liabilities) (Compensation Trusts) Order, 1953. Dated October 28, 1953, made by the National Coal Board under Section 5, sub (1) of the Coal Industry Act, 1949(a). *H.M.S.O.* 4d. (Transfers to the National Coal Board the workmen's compensation liabilities. It also extinguishes the liabilities of the trustees under such trusts to make payments in discharge of workmen's compensation liabilities transferred by the Order to the Board.) Operative from November 9, 1953.

No. 1611. The Wages Regulation (Unlicensed Place of Refreshment) Order, 1953. Dated November 5, 1953, made by the Minister of Labour and National Service under Section 8 of the Catering Wages Act, 1943(a). *H.M.S.O.* 9d. (Revokes Orders U.P.R. (9) and (12), and sets out the minimum statutory remuneration.) Operative from November 30, 1953.

No. 1636. The Retail Newsagency, Tobacco and Confectionery Trades Wages Council (Scotland) Wages Regulation (Amendment) Order, 1953. Dated November 13, 1953, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(a). *H.M.S.O.* 2d. (Amends Order R.N.T.S. (10) by increasing the statutory minimum remuneration fixed by that Order.) Operative from December 4, 1953.

No. 1701. The Baking Wages Council (Scotland) Wages Regulation Order, 1953. Dated November 20, 1953, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(a). *H.M.S.O.* 6d. (Amends Orders BKS (25) and (27) and sets out the statutory minimum remuneration.) Operative from December 9, 1953.

No. 1703. The Conveyance of Government Explosives in Harbours Regulations, 1953. Dated November 23, 1953, made by the Admiralty, the Secretary of State for War, the Secretary of State for Air and the Minister of Supply under para. (5) of Section 97 of the Explosives Act, 1875(a). *H.M.S.O.* 6d. (These Regulations lay down the rules to be observed when Government explosives are being conveyed in harbour areas.) Operative from December 10, 1953.

No. 1708. The Ecclesiastical Officers Remuneration Order, No. 1, 1953. Dated November 10, 1953, made by the Archbishop of Canterbury and the Archbishop of York under the Ecclesiastical Officers Remuneration Measure, 1939(a). *H.M.S.O.* 4d. (Substitutes new fees for those hitherto payable to certain diocesan officers in respect of ecclesiastical duties specified in the first and second schedules to the order.) Operative from December 1, 1953.

No. 1709. The Ecclesiastical Officers Remuneration Order, No. 2, 1953. Dated November 10, 1953, made by the Archbishop of Canterbury and the Archbishop of York under the Ecclesiastical Officers Remuneration Measure, 1939(a). *H.M.S.O.* 4d. (Fixes the fees payable to diocesan legal officials in respect of duties falling upon them under certain Church Assembly Measures specified in the schedule to the Order.) Operative from December 1, 1953.

No. 1712. The Retail Bespoke Tailoring Wages Council (England and Wales) Wages Regulation (Holidays) Order, 1953. Dated November 24, 1953, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(a). *H.M.S.O.* 4d. (Revokes Order R.B. (34) and sets out the holidays which an employer is required to allow to workers and the remuneration payable for those holidays.) Operative from December 18, 1953.

Draft. The National Service Act, 1948 (Duration) Order, 1953. Made by H.M. The Queen under Section 61 of the National Service Act, 1948(a). *H.M.S.O.* 2d. (Amends s. 61 of the N.S.A., 1948, and provides for the extension of the operation of that Act from January 1, 1954 to January 1, 1959.)

INDUSTRIAL COURT AWARDS

No. 2474. Railway Shopmen. Reference: Claim for increased rates of pay for skilled moulders and coremakers in railway foundries by 5s. per week and in respect of foundry labourers, an increase of 3s. per week. Appropriate increases are further requested for intermediate grades in railway foundries. **Award:** Claim not established. (19/10/53.)

No. 2475. Catering Industry. Reference: To determine whether the agreement, entered into on February 7, 1951, between the New Grand Hotel (Birmingham) Ltd., the Midland Hotel (Birmingham) Ltd., and the Union of Shop, Distributive and Allied Workers shall, in part or in whole, continue to operate as part of the conditions of employment of members of the trade union employed by these companies. **Award:** Claim not established. (19/10/53.)

No. 2476. Fishing Industry. Reference: Interpretation of Industrial Court Award No. 2437. **Award:** That the word "home" in the fourth line of para. 6(c) of the Award means the place where the radio officer normally stays between his trips at sea. The final sentence of the penultimate paragraph of the Award requires that the view expressed by the Court in the paragraph shall be accepted and given effect by the parties to the Award. (23/10/53.)

No. 2477. Fishing Industry. Reference: To determine a claim of the Associated Blacksmiths', Forge and Smithy Workers' Society that: (a) blacksmiths' strikers, employed by firms in membership of the Hull Fishing Vessels Owners' Association, are entitled to an increase of 11s. per week in accordance with the terms of the Agreement, dated November 28, 1950, between the Engineering and Allied Employers' National Federation and the Confederation of Shipbuilding and Engineering Unions, and (b) the necessary adjustment of 3s. per week be made from and including May 16, 1953, being the date when the claim was first formally raised by the Union. **Award:** Claim not established. (28/10/53.)

No. 2478. Baking Industry. Reference: To decide a claim by the Amalgamated Union of Bakers and Confectioners of Great Britain for increases in the rates of pay as set out in the Agreement signed by the Union and the North Western Federation of Master Bakers' Associations as follows: adult male workers, 1½d. per hour; males aged 18-20, ¾d. per hour; males under 18 years of age, ¾d. per hour; adult female workers, 1d. per hour; female confectioners under 21 years of age, ¾d. per hour; female "other workers" under 18, ¾d. per hour. **Award:** Claim established. (2/11/53.)

No. 2479. Entertainment Industry. Reference: To determine whether Bournemouth Corporation should exercise their right (a) to dispense with the existing orchestra of eleven players (and a non-playing conductor) employed by the Corporation at their Bournemouth Pavilion Theatre and for such purpose to terminate the employment of the players in accordance with the terms of such employment and (b) to engage in place of the theatre orchestra a pit orchestra comprising seven players only, such players—if they so desire—to be selected from the existing players, and to be engaged on a contract of service. **Award:** Bournemouth Corporation shall be at liberty (a) to dispense with the existing orchestra of eleven players; (b) to engage a pit orchestra of seven players only (including a leader-playing-conductor) to be selected from the present orchestra. In the event of (b) the scale of wages shall be the Scale 2 Rates and Bonus. (3/11/53.)

No. 2480. Entertainment Industry. Reference: To determine the claim by members of the Musicians Union that the following rates of pay be observed: Musicians on continuous contract; principals, £16 per week; second principals, £14 10s. per week; others, £13 per week. Musicians casually employed; per concert—principals, £3 4s.; second principals, £2 18s.; others, £2 12s. In addition, the Union claim that the conditions of employment of continuously employed musicians shall be in accordance with those specified in the draft contract which they submitted to the Association in January, 1952. **Award:** (a) Symphony orchestras shall include in their contract an obligation on the part of the musician to perform for television as a normal part of his contractual duties upon payment to him of additional pay. The amount of such payment shall be determined by agreement between the parties to this Award; (b) If and when the musician is required to perform on Christmas Day or Good Friday compensatory leave shall be given; (c) The musician shall be entitled in each year to four consecutive weeks holiday on 75 per cent of his full salary, such holiday to be at such time as shall be mutually agreed between the members of the orchestra and the Society having regard to the exigencies of the programme requirements. (4/11/53.)

No. 2481. Fair Wages Resolution. Reference: Complaint by the Amalgamated Engineering Union that the Medical Supply Association, Ltd., are not fulfilling the requirements of the Fair Wages Resolution passed by the House of Commons on October 4, 1946. **Award:** Claim not established. (4/11/53.)

No. 2482. Mastic Asphalt Industry. Reference: Claim and counter claim for revision of the National Working Rules. **Award:** Rules 5, 7, 9, 11, 12 and 13 are amended; otherwise the Court find against the claim and the counter claim. (19/11/53.)

No. 2483. Agriculture. Reference: To determine a difference arising between the Association of Scientific Workers and the National Institute of Agricultural Botany as to the salary scales which should apply to the Official Seed Station analysts employed by the Institute at Cambridge. **Award:** That qualified analysts appointed by the National Institute of Agricultural Botany at Cambridge to the permanent staff shall be paid in accordance with the Assistants (Scientific) scale for established provincial staff. (24/11/53.)

INDUSTRIAL DISPUTES TRIBUNAL

AWARDS

No. 452. Grading of a Storekeeper Employed at a Hospital in Bristol. Claim: That the post of storekeeper at Southmead General Hospital be upgraded to Class 1. **Award:** Claim not established. (26/10/53.)

No. 453. Grading of an Officer Employed by the Liverpool Regional Hospital Board. Claim: That the post of chief administrative assistant (Medical Division) should be graded in the Assistant Secretary grade. **Award:** Claim not established. (2/11/53.)

No. 454. Fees for Professional Association Football Players who Took Part in the Coronation Cup Tournament. Claim: For increased fees for players who took part in the Coronation Cup Tournament, and for a donation from the proceeds of the Tournament to the Benevolent Funds of the Unions. **Award:** Claim not established. (4/11/53.)

No. 455. Claim for Premium Payment for Work Done on Two Particular Days of Holiday by Maintenance Engineering Workers Employed by a Firm engaged in the Flax Industry in Arbroath. Award: Claim not established. (4/11/53.)

No. 456. Remuneration of Certain Domestic and Similar Grades of Staff Employed in Hospitals and Institutions Throughout Great Britain. Claim: On behalf of all workers, other than part-time workers, for the payment of weekly rates prescribed for their grade. **Award:** Claim established. (6/11/53.)

No. 457. Rates of Wages of Workers Employed in Fish Curing Houses at Hull. Claim: For a substantial increase in wages. **Award:** That the minimum rate of wages for unskilled workers shall be 125s. per week for men 21 years of age and over and 85s. per week for women 20 years of age and over; proportionate increases shall

be made in the minimum rates of wages for boys and youths and for girls. (10/11/53.)

No. 458. Rates of Wages of Certain Workers Employed in the Funeral Furnishing Departments of Co-operative Societies in Kent (Award No. 281). Claim: For certain amendments in the current agreement relating to rates of pay. **Award:** That branch managers provided with free living accommodation and light shall be paid a minimum wage of £8 8s. per week. Backdated to July 28, 1952. (See Award No. 281.) (13/11/53.)

No. 459. Remuneration of Net Braiders Employed in the Trawl Net Manufacturing Industry at Aberdeen. Claim: For the continued payment to net braiders of a bonus of 12½ per cent over the minimum rates fixed by the Rope, Twine and Net Wages Council (Great Britain). **Award:** Claim established. (20/11/53.)

No. 460. Working Week of Certain Classes of Workers at an Iron and Steel Works at Ebbw Vale. Claim: For a reduction in the working rota of certain workers from a 48 to a 44-hour week without loss of wages. **Award:** That the working week of the workers concerned shall be reduced from 48 hours to 44 hours, restoration of the loss of earnings resulting from the reduction in hours to be made to the extent of 70 per cent of such loss. (20/11/53.)

[Industrial Disputes Tribunal Award No. 451 not available.]

GENERAL

Reports of the Committees of the Ministry of Education on Scales of Salaries for Teachers in Primary and Secondary Schools, England and Wales, 1951, Teachers in Establishments for Further Education, England and Wales, 1951, Teaching Staff of Training Colleges, England and Wales, 1951 (Addendum No. 2.) *H.M.S.O.* 4d.

Civil Service Arbitration Tribunal—Sales Grades Employed in the Inland Telecommunications Department of the Post Office Headquarters. Claim: For revision of the salary scales (for men in London) appropriate to the following grades: controllers of sales, assistant controllers of sales, sales investigation officers and assistant sales investigation officers. **Award:** salary scale of assistant sales investigation officers to be revised to £620, rising by increments of £25 to £750 per annum. This scale excludes—and is subject to—Civil Service pay additions. Claims in respect of officers in other grades are not established. *H.M.S.O.* 1s. (15/10/53.)

British Industries Fair. Report of the Sub-Committee of the Exhibitions Advisory Committee Reviewed the Present arrangements for the B.I.F. (Cmd. 9013) *H.M.S.O.* 6d. (11/9/53.)

Safety and Mines Research. 31st Annual Report, 1952. Presented by the Ministry of Fuel and Power. *H.M.S.O.* 3s.

Lung and Chest Protection (Continued from page 320)

centration. An ammonia canister has a life of 100 minutes in a one per cent concentration and 1,000 minutes in a 0.1 per cent concentration. Should it therefore be replaced after 100 minutes wearing? It is possible to obtain canisters with a visual indicator but they are not widely used as the indicator changes colour when there is twenty-five per cent to fifty per cent of the effective life of the canister left.

Dust Masks

Many people in industry must have been amused at the recent publicity given to certain well-known and widely-used dust masks as an aid against "smog." The cotton-wool pad with either a wire or aluminium frame is light and effective against coarse dusts. It has one advantage over all other types of dust respirators: the workers will wear them although they may not give the same degree of protection that is offered by other types of mask.

Some years ago the Home Office sought to find a most suitable type of mask for dealing with the very small dust particles which can cause asbestosis and pneumoconiosis and as a result the *Mark IV* type of dust respirator was given official approval.

Subsequent development led to a full face mask which gave eye as well as dust protection. More recently a new type of respirator, known as the micro-filter mask, has been approved and is recommended for the steel industy. It is slightly lighter, and the filter media, a resin impregnated merino wool pad, is completely different. This mask has a very high efficiency with small dust particles, offers little resistance to breathing and is comfortable in wear. Other types of dust respirator include sponge-rubber and cloth as the filter media.

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BURTON MANOR

January.

3-15 Supervisory Management. Course No. 444.

4-8 Introduction to Supervision. Course No. 445.

10-22 Course for Supervisory Grades in the Docks Industry. Course No. 448.

31-Feb. 12 Supervisory Management. Course No. 457.

INDUSTRIAL WELFARE SOCIETY

12-14 **London.** Three-day Tutorial Course on Industrial and Factory Law for Managers and Executives.

18-22 **London.** "Active Leisure." (Dobson and Young lecture.)

19 **London.** Principles of Management. (One-day course for Foremen.)

22-25 **Cliftonville.** Residential Conference for Works Managers.

25 **London.** Job Evaluation (Introduction.)

INSTITUTE OF INDUSTRIAL SUPERVISORS

8-10 **Wansfell,** Epping. "Work study for supervisory management." (Week-end Course.)

INSTITUTE OF INDUSTRIAL TECHNICIANS

12 **Manchester.** "The Place of Motion Study among Work Study Techniques."

21 **Birmingham and District Branch.** "Some Training Aspects of Methods Improvements."

INSTITUTE OF PERSONNEL MANAGEMENT

4 **London.** East London Group. "Discipline in the Factory."

7 **London.** Discussion on "Re-thinking the Organisation of a Personnel Department and Relationship with Management and Employees."

11 **Coventry.** "Relationships with Trade Unions."

11 **Glasgow.** "Training for Junior Management."

12 **London.** "A National Wages Policy in Operation—Some Problems and Difficulties."

12 **Southampton.** Discussion on Dr. Elliott Jacques' Book "The Changing Culture of a Factory."

14 **Newcastle.** "Common Law Claim."

18 **Leicester.** "The Role of the Trade Union Today."

19 **Stoke-on-Trent.** "Impact of Moral Imbecility on Human Relations."

20 **Liverpool.** Debate on "How far should Firms Supplement State Welfare Services?"

31-Feb. 5 **Birmingham.** Five-day Residential Study Course on "Education and Training."

INSTITUTE OF WELFARE OFFICERS

8 **London.** Discussion Meeting on "The Work of the Psychiatric Social Worker."

INSTITUTION OF PRODUCTION ENGINEERS

12 **Birmingham (Graduate).** "Control Chart Technique and Production Efficiency."

18 **Halifax.** "The Problems of a Managing Director."

11 **Bristol (Western Graduate).** "Management and the Law."

20 **Birmingham.** "The Trade Union in Engineering Production."

NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY

4-8 **London.** Course 1. In Selection Methods.

6 **London.** "The Foreman's Opinion of Management."

25-29 **Manchester.** Course 1. In Selection Methods.

URCHFONT MANOR

4-10 One-week Course for Promising Young People in Industry on "A Future in Industry."

12-14 "The Implications of Work Study."

25-31 "The Human Factor in Production." (Course for Potential Supervisors in Industry.)

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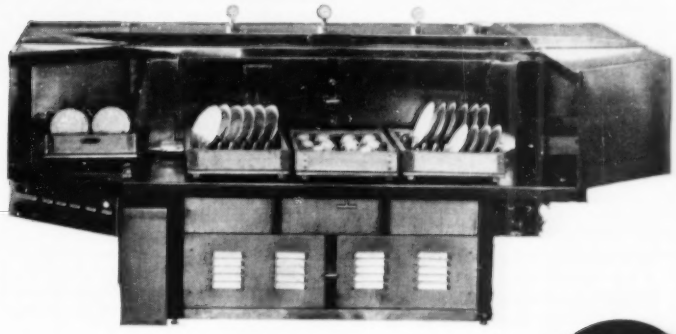

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The Quick and Easy Way to Brighter Interiors

Masonite Enamelled Presdwood is worked with ordinary woodworking tools and can easily be fixed (24 sq. ft. in one operation) to existing plaster walls or flat surfaces with a suitable adhesive. Supplied in normal standard panels 8 ft. by 4 ft. (Plain) or 6 ft. by 4 ft. (Tiled or Plain). Tile boards in 4 in. or 6 in. squares. Obtainable from stock in 3 colours, white, green or cream.

Remember— there is no substitute !

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LS101N

How Colour And Light Help Production

(Continued from page 312)

artificial lighting for at least a part of the working day, a colour scheme has to be balanced for both forms of illumination; and the difficulties encountered are invariably caused by the artificial lighting used.

Where extremely accurate colour rendering is called for in a factory or laboratory, it is generally required only over a limited area in which case the work space is specially lighted and decorated accordingly. In most cases such areas, which may be small rooms or booths, are separate from and therefore are not affected by the lighting in the rest of the works. From the point of view of lighting economy in terms of light output for electricity consumed special "*colour matching*" lamps are less suitable for lighting large areas than the more usual types of lamps and are, therefore, employed only in special circumstances.

Colour And Light At Work

Brighter, Better Factories

Colour and Light at Work, by R. F. Wilson, Art Director. British Colour Council. Seven Oaks Press Ltd., 25s.

FROM time to time, a volume is published exposing how much remains to be done in a given branch of human activity. One such is Mr. Wilson's book on the application of colour and lighting in industry, factors which to date have by no means been exploited to the fullest advantage. Anyone familiar with British industry will have noted the vast difference in working atmosphere between factories, workshops and offices where colour and lighting have been intelligently exploited and others (all too many) where nothing has been done at all.

Colour and Light at Work is in eight chapters which take us from the first principles of colour and colour groupings to their application in industry for the purposes of safety and efficiency, this latter embracing many such considerations as cheerfulness, atmosphere, avoidance of eyestrain, the identification of plant and the illusion of space. The book concludes with a summing-up and a general list of recommendations. There is also an excellent chapter on natural and artificial lighting and one on the use of colour for specified industries and for offices, canteens, cloakrooms, lavatories, rest rooms and the like. First-class colour illustrations bring out a number of important points made in the text.

Readable Expertise

Mr. Wilson presents his data fully and simply, expertise without tears. He is both objective and enthusiastic as, for instance, when he writes: "Although I have said that I would never claim that any reduction in absenteeism or improvement in production was directly attributable to any lighting and colour scheme for which I had been responsible, there have been a number of cases where colour and lighting has definitely played an important part in increased productivity. One firm by whom I was consulted started a bonus scheme a few years ago and in the first year the bonus averaged 12 per cent. In the second year during which the factory was repainted and relit, it rose steadily until by the end of the second year it was 40 per cent." Which seems to be a logical inference from the fact that the author has also found that the rank and file of workers definitely appreciate the introduction of colour/lighting schemes.

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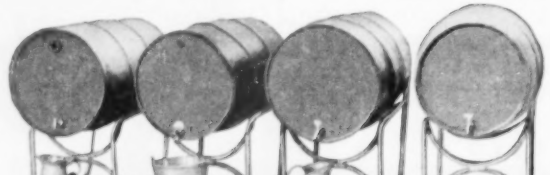

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People (continued from page 328)

MR. S. F. BURMAN, managing director of Burman and Sons Ltd., Birmingham, production engineers, has been appointed a non-executive director of Imperial Chemical Industries Ltd.

MR. CEDRIC FORD, director and secretary of the Sundeala Board Co. Ltd., has been appointed to the vice-chairmanship of the Building Board Manufacturers' Association in succession to Mr. T. B. Dodson. Mr. Ford has been associated with the fibreboard trade for thirty-eight years.

MR. J. R. HARDING, has been appointed assistant general manager of Pirelli-General Cable Works Ltd. Joining the company in 1925, he has been successively a district engineer, manager of Overhead Lines Department, deputy sales manager for rubber cable and joint sales manager for paper cable.

MR. E. TOMKINSON, an authority on economic and commercial affairs, has been appointed full-time organising secretary of the Birmingham Productivity Association, and will also automatically become a member of the Association's Council and Action and Education Committee.

Obituary

MR. HARRY BRADDOCK, chairman and managing director, Messrs. Robert McArd and Co. Ltd., Denton, Near Manchester. He was aged fifty-seven.

CENTRAL REDIFFUSION SERVICES LTD., of Carlton House, Lower Regent Street, S.W.1, have published a new, lavishly-illustrated brochure outlining the firm's activities and services throughout industry, hospitals, hotels and so forth.

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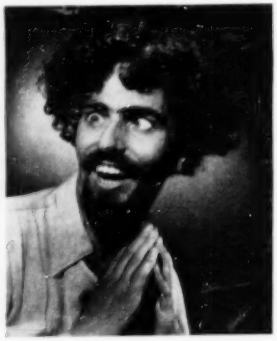

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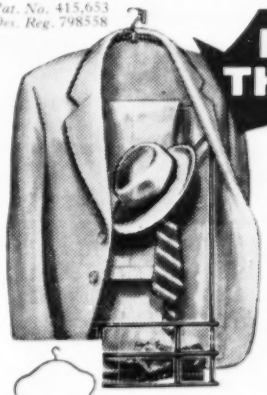

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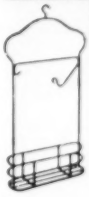

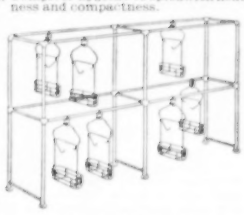

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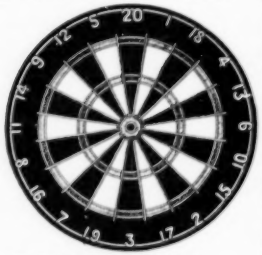

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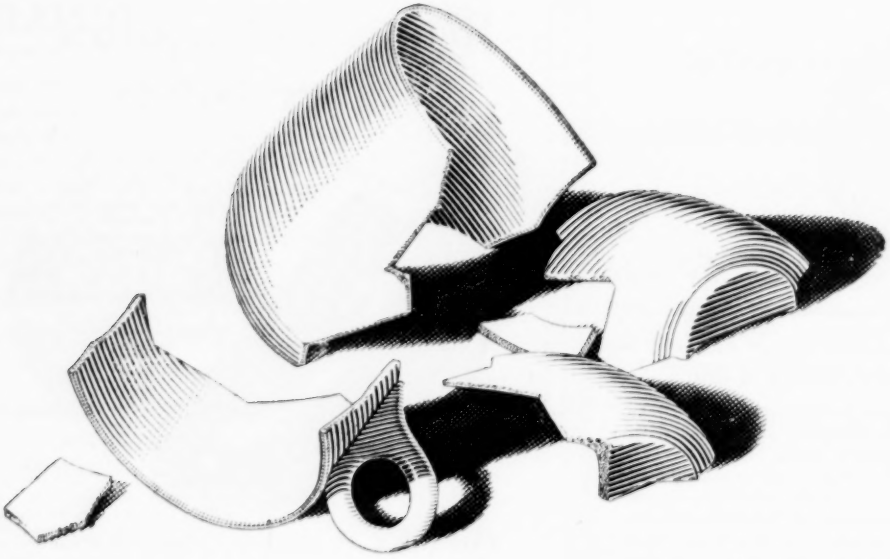

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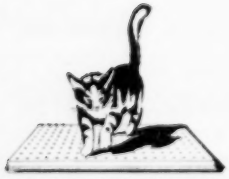

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